

BOLINDER'S

BOLINDER'S U.S.A. INSTALLATIONS

Name—	Type of Vessel	Dimensions			Tons	Power B. H. P.	Speed Knots
		Length	Breadth	Depth	D. W.		
Bldg. B'more (Vacuum Oil Co.).....	Tanker	306	47	28	4500	1650	11
"	"	306	47	28	4500	1650	11
"	"	306	47	28	4500	1650	11
"	"	306	47	28	4500	1650	11
Chas. R. McCormick.....	Schooner	276	48	21	3500	640	8½
"	"	276	48	21	3500	640	8½
"	"	276	48	21	3500	640	8½
Manitowoc Shipbldg Co.....	Schooner	261	40-6	23	3000	640	9
"	"	261	40-6	23	3000	640	9
A. O. Andersen & Co., N. Y.....	Schooner	246	44	22	2600	640	9
"	"	246	44	22	2600	640	9
The Texas Co.....	Schooner	259-5	45-3	22-9	3500	640	8½
E. K. Wood Lumber Co.....	Schooner	210	42	15	1800	640	9¼
C. & O. Lumber Co.....	Schooner	175	42-6	18		640	
W. R. Grace & Co.....	Bark					640	
"	"					640	
A. O. Andersen & Co., N. Y.....	Schooner	192	41-3	21	1500	480	8½
Standard Oil Co.....	Schooner	261	43	23-6	3200	320	7
"	"	261	43	23-6	3200	320	7
"	"	261	43	23-6	3200	320	7
"	"	261	43	23-6	3200	320	7
"	"	261	43	23-6	3200	320	7
Standard Transp. Co.....	Tanker	197-3	35	14-4	1600	320	7½
Pendleton Bros.	Schooner	255	43	22-6	3000	320	
	"					320	
Andrew Mahoney	Schooner	225	43	20-3	2700	320	6¾
"	"	225	43	20-3	2700	320	6¾
"	"	225	43	20-3	2700	320	6¾
"Mabel Brown"	Schooner	225	44	23	2250	320	7
"Geraldine Wolvin"	Schooner	225	44	23	2250	320	7
"Jessie Norcross"	Schooner	225	44	23	2250	320	7
"Janet Carruthers"	Schooner	225	44	23	2250	320	7
"Mabel Stewart"	Schooner	225	44	23	2250	320	7
"Marie Barnard"	Schooner	225	44	23	2250	320	7
"Margaret Haney"	Schooner	225	44	23	2250	320	7
"Laurel Whalen"	Schooner	225	44	23	2250	320	7
Matson Navigation Co.....	Schooner	212	34	21-6	1700	320	8
R. P. Rithett.....	Bark	206	38	19	1850	320	7½
Shell Oil Co.....	Tanker	211	34	19-6	1800	320	7½
W. R. Grace & Co.....	Schooner	170	38-8	9-8	800	320	8½
W. & S. Job & Co.....	Schooner	210	40	19	2100	320	7½
J. B. King & Co.....	Barge	220-7	35	21	1900	320	7
"	"	220-7	35	21	1900	320	7
"	"	220-7	35	21	1900	320	7
"Carmela"	Bark	262	37-6	22	2200	320	7
Chas. R. McCormick.....	Schooner	230	44	19		320	
R. Lawrence Smith, N. Y.....	Schooner	236	40	19	2000	320	7
Pacific Commercial Co.....						320	
Honolulu Iron Works.....		124	25	9		240	
W. & S. Job & Co.....	Schooner	153-8	28-3	12-4	550	160	7
Borden & Lane.....	Schooner	138	32	13	600	160	7¾
"Marie L. Hanlon"	Tug	71-5	17-8	7-5		160	9¾
"A. I. West"	Schooner	161	40	11-6	1050	160	6
"Eclipse"	Schooner	104	27	14	500	160	7¾
"Pilar"	Schooner	148	32		850	160	6½
"Gracie S."	Pilot	83	24-7	10-2		120	9
W. & S. Job & Co.....	Schooner	122-5	24	13	400	100	6½
"Gilbert Islands"	Schooner	125	31	11-9	650	100	6
"Chiriqui"	Schooner	110	24	8	200	100	6½
"Ocmulgee"	Riverboat	120	24	5	90	100	8¾
F. A. Scharberg	Riverboat	97	19-6	8		100	

Total B. H. P. Marine Engines.....27.140

In addition to above OVER 10,000 B. H. P. stationary and smaller marine engines installed throughout U. S. A.

SEATTLE

HENRY LUND & CO.

SAN FRANCISCO

DONOHOE'S STEEL REINFORCED KEELSON

(Patent Applied for)

Washington Overseas Shipbuilding and Construction Co.
YARDS AT ABERDEEN, WASH.

PATRICK J. DONOHOE
Naval Architect

Pacific Block
SEATTLE, WASH.

MOTORSHIP AUXILIARIES

STEAM, ELECTRIC AND GASOLINE

Winches, Windlasses and Capstans

Brailing and Purse Seine Winches for Cannery Tenders and Fish Boats

Hand and Power Steering Gears, Tail Shafts, Struts, Stern Tubes, Etc.

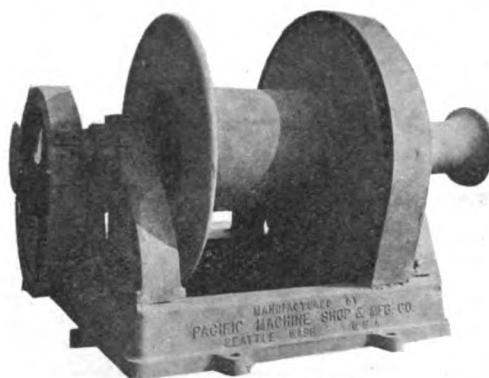
DIESEL AND SEMI-DIESEL ENGINE INSTALLATIONS AND REPAIRS

ELECTRIC WIRING FOR LIGHT AND POWER

PACIFIC MACHINE SHOP AND MFG. CO.

ALLAN CUNNINGHAM, B. Sc. Pres.

SEATTLE, WASH.



TWO-TON ELECTRIC WINCH
Simple and flexible as steam and far more efficient

1426 Railroad Ave.

Economical in Its Long Life. Satisfactory from Every Angle

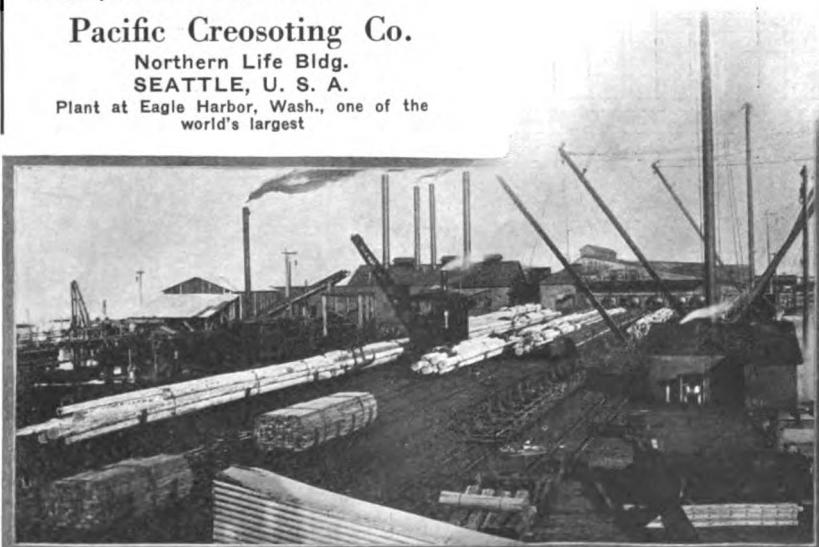
Creosoted Piling

For Fish Traps, Wharves, Dolphins, and all purposes where long-life construction is desired. Our modern creosoting process adds 15 to 20 years to the life and usefulness of wood. For interior floors and for approaches to docks, terminals, etc. —Korruko Wood Block. Let us send you latest booklet.

Pacific Creosoting Co.

Northern Life Bldg.
SEATTLE, U. S. A.

Plant at Eagle Harbor, Wash., one of the world's largest



SHIPMATE HEATING STOVES

As good as Shipmate Ranges, and that is all that need be said.

Send for descriptive folder

Made by

THE STAMFORD FOUNDRY COMPANY

Established 1830.

Stamford, Conn.

PACIFIC COAST AGENCIES

HOLBROOK, MERRILL & STETSON, Sixth, Bluxome and Townsend Sts., San Francisco, Cal.

PACIFIC NET & TWINE COMPANY, Pier 8, Seattle, Wash.

F. W. ISHERWOOD, 17th and Upshur Sts., Portland, Oregon.

THE CANADIAN FAIRBANKS-MORSE CO., 798 Beatty St., Vancouver, B. C.

FOR SALE HALF A BOAT

A BOAT is only half a boat without first class fittings, forget, for the moment, the joy, service and safety such fittings afford. Some day you'll sell your boat, and if it is well equipped with "WC" Marine Hardware you can get more for it. For 70 years "WC" has stood for the best and most economical Marine Hardware. It's your safeguard—look for it.

**SEND NOW FOR THIS
USEFUL BOOK**

"Sea Craft Suggestions and Supplies" — 216 pages. Full of useful ideas. Tells how to box the compass — what is proper Ground Tackle; gives hints on Steering Gear, Stern Bearings, etc. Well worth having. Sent only on receipt of 20 cents.



NEW NAVY WINDLASS

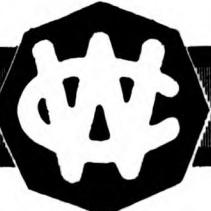
For anchors up to 150 lbs. Has Winch Head for rope; wild-cat for chain cable. You can heave on a line—let the chain run free—or stop it instantly at any point. Three operations controlled by one Heaving Lever. No complicated parts.

'It Pays to Buy Our Kind'

World's Largest Marine Hardware Manufacturers

Established 1847

Mfrs. of the Famous Maxim Motor Boat Silencer



**WILCOX, CRITTENDEN
& COMPANY, INC.**

20 S. Main St., Middletown, Conn.

The Oil Trade Journal

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FUEL OIL JOURNAL

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REVIEWS BY EXPERT WRITERS OF THE PETROLEUM INDUSTRY IN ALL ITS BRANCHES:—PRODUCING, REFINING, SHIPPING AND MARKETING.

A SPECIAL DEPARTMENT DEVOTED TO THE FINANCIAL SIDE OF THE INDUSTRY, STOCKS, BONDS, ETC., WITH FREE SERVICE TO SUBSCRIBERS.

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SAILS TENTS AWNINGS COVERS BEDDING Waterproof Clothing

First Class Work Guaranteed

Our Merchandise Is Right

HIRSCH-WEIS MFG. CO.

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PORTLAND, ORE.

If It's Made of Canvas We Make It

JAMES W. HALL

SURVIVOR OF THE FAMOUS

HALL BROS.

PORT BLAKELEY



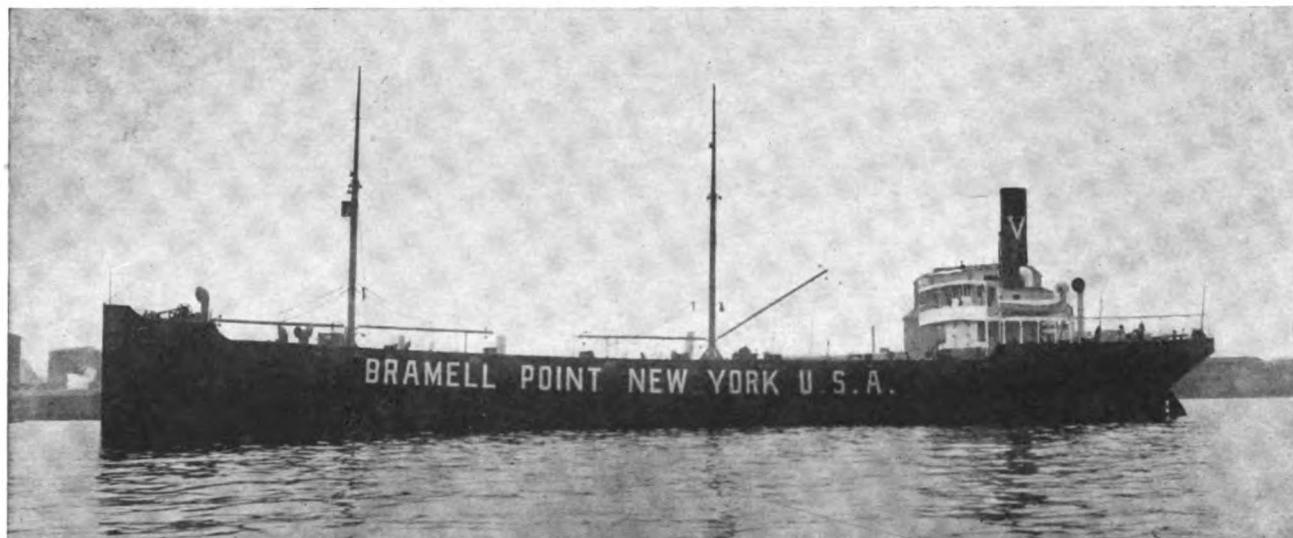
"INCA"

DESIGNER
and
BUILDER
of
**Wooden
Vessels**

WINSLOW, WASHINGTON, U. S. A.

BOLINDER'S

500,000 B. H. P. OF BOLINDER'S ENGINES
NOW IN USE IN ALL PARTS OF THE WORLD.



America's First Large Mercantile Motorship

The Vacuum Oil Co.'s Tanker

"Bramell Point"

Length.....	306' 0"
Breadth.....	47'
Moulded depth.....	28'
Loaded depth.....	22' 8"
Displacement.....	7250 tons
Deadweight capacity.....	5500 tons
Speed.....	10.5 knots

Equipped with 1650 B. H. P. "BOLINDER"
Fuel Oil Engines in three units, "M-11" Model.

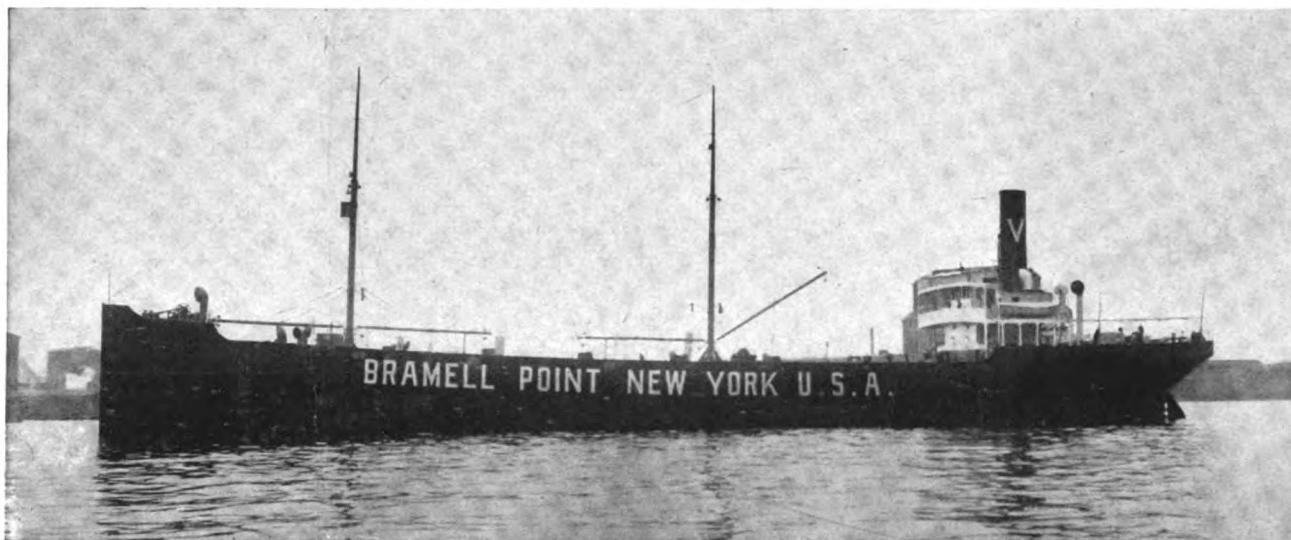
The "BRAMELL POINT" has just completed
her maiden round voyage from New York to Lis-
bon, Portugal, and return in excellent time to the
great satisfaction of her owners.

Present Sales
and
Yearly Output
70,000 B.H.P.

Present
U. S. A.
Bolinder
Installations
40,380 B.H.P.

BOLINDER'S

500,000 B. H. P. OF BOLINDER'S ENGINES
NOW IN USE IN ALL PARTS OF THE WORLD.



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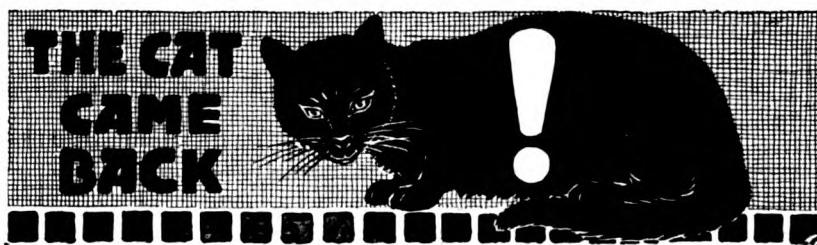
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Present
U. S. A.
Bolinder
Installations
40,380 B.H.P.



THAT'S the story of all "cheap," so-called "bargain" marine hardware. Sooner or later it comes back like a bedraggled Mariar! You can't count on getting something for nothing. But—in the long run you will surely save more by insisting on and getting the

Dependable Line of
Marine Hardware

thoroughly tried and tested in Actual Service Almost Three-Quarters of a Century.

Three generations of seamen have been familiar with its merits. They are still asking for it.

**World's Largest
Mfrs. of Marine
Hardware**

Est. 1847



**WILCOX, CRITTENDEN
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Makers of the Famous Maxim Silencer for Motor Boats
20 S. Main St., Middletown, Conn.

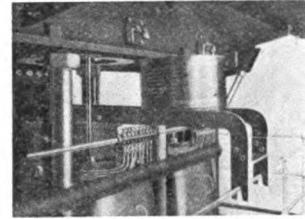


Trawl Anchors

Specially designed for Pacific Coast use. Drop forged. Heavily galvanized by the "Hot Dipped" Process.

For Sale by all
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**Werkspoor
Diesel Type Engines
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Removing, or inspecting, a piston without disturbing the valve mechanism, or cylinder crowns—one of the exclusive features that made the WERK-SPOOR Diesel motor practical for marine purposes

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STEAM, ELECTRIC AND GASOLINE

Winches, Windlasses and Capstans

Brailing and Purse Seine Winches for Cannery Tenders and Fish Boats

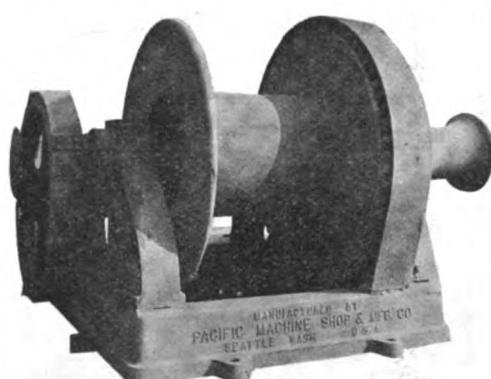
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YARDS AT EVERETT, WASH.

PATRICK J. DONOHOE
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SEATTLE, WASH.

Sumner Steam Cargo Hoist

A New, 1917 Model

Cylinders

8" x 10"; steam pipe, 2"; exhaust pipe, 2½"; self-draining piston valves.

Manifold for Steam and Exhaust

is lowest part of cylinders and valves, thereby draining all condensation from exhaust.

With Balanced Throttle Valve

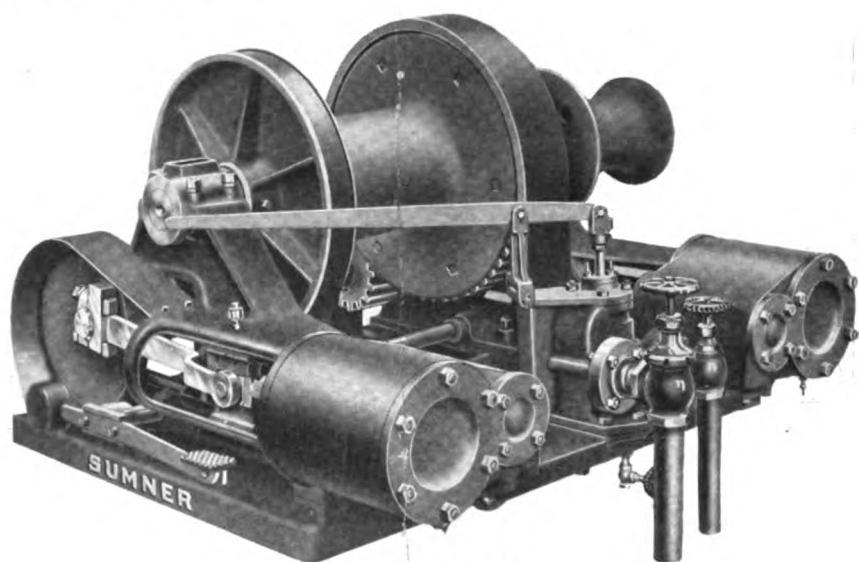
securely bolted thereto. Lever in any position desired.

Main Shaft

Forged steel, 4 3/16 in dia.

Extended Box

with 13" bearing, supporting main shaft the entire distance between main gear and gypsy head.



1917 Model, No. H32

Write for Descriptive Matter, Weights and Prices to

Sumner Iron Works

EVERETT, WASH., U. S. A.

SOLE MANUFACTURERS AND DISTRIBUTORS

internal
combustion
engines

run best when
lubricated with

ARISTO

MARINE MOTOR OIL

They deliver most power and
run most economically when
using the clean fuel

DIESEL

Supplied at main
Pacific Ports by the
UNION OIL COMPANY
OF CALIFORNIA

Stroke 5"' is printed next to the engine. At the bottom, there is a list of Pacific Coast Distributors."/>

Wisconsin
CONSISTENT
Motors

Type Q. M.
4-cylinder,
4-cycle,
Bore 3 1/4".
Stroke 5"

Recognized the world over for consistent performance. Built for the man who demands more power and speed, greater economy and durability. Write for catalog of different sizes and models.

WISCONSIN MOTOR MFG. CO.

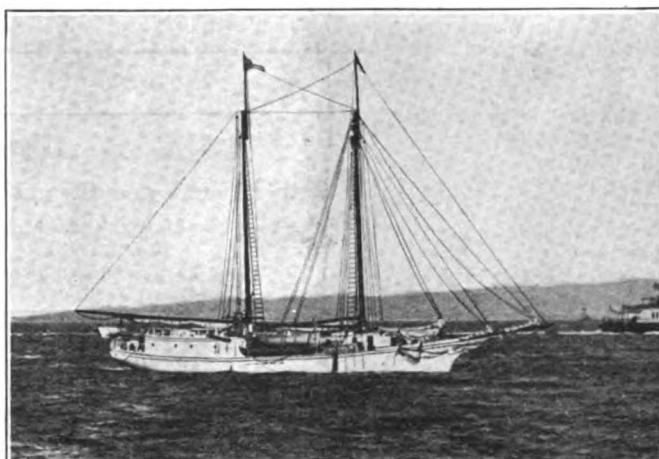
Sta. A, Dept. 305. Milwaukee, Wis.

Pacific Coast Distributors:

Earl P. Cooper Co., 1428 Bush St., San Francisco, Cal., and 1310 So. Angeles St., Los Angeles, Cal.

W. F. McKenney, 68 First St., Portland, Ore.

Chandler, Dunlap Co., Seattle, Wash.

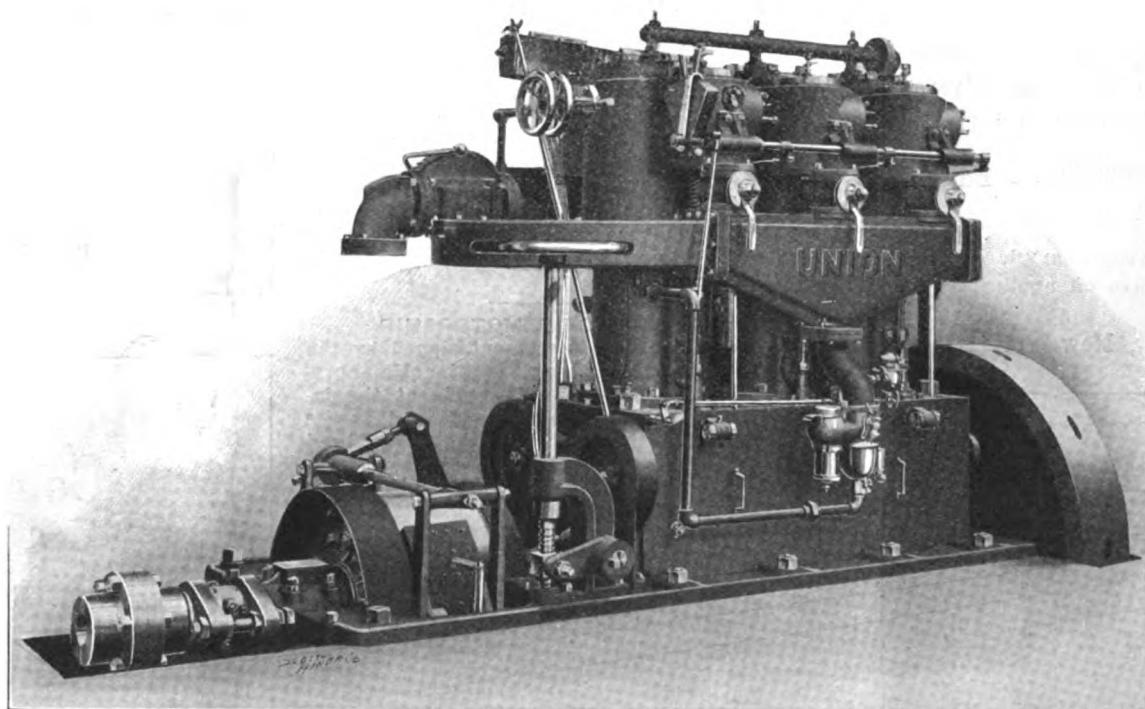


"Avarua" is equipped with 80 h. p. 3-cylinder Open Cross Head Union Engine

Avarua was built for open sea service. To reach her ports of call, narrow and treacherous coral reefs must safely be navigated. Failure of her power plant among these reefs would mean certain destruction.

Her owners specified Union Engines, for they knew that—

"The Union is Certainly The Best Built Engine"



Union Gas Engine Co.
Oakland, California

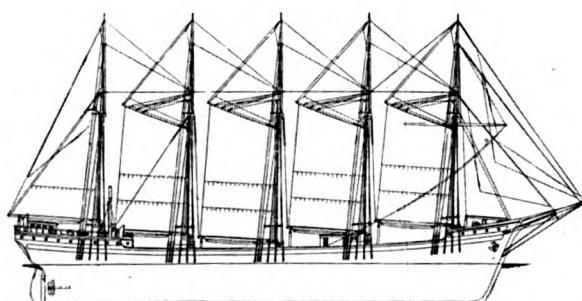
Peninsula Shipbuilding Company

Builders of
**SHIPS FROM DOUGLAS
FIR**

ASSURING STRENGTH
AND BUOYANCY

PORLAND, OREGON

WOODEN VESSELS



**WE NOW HAVE UNDER CONSTRUCTION FIVE VESSELS
OF THE ABOVE TYPE.**

290 Feet O. A.

Capacity, 2,225,000 Feet Lumber

A Centrally Located, Well Equipped Yard, Capable
of Turning Out Work of the Highest Grade
with Promptness and Dispatch

OLYMPIA SHIPBUILDING CO.

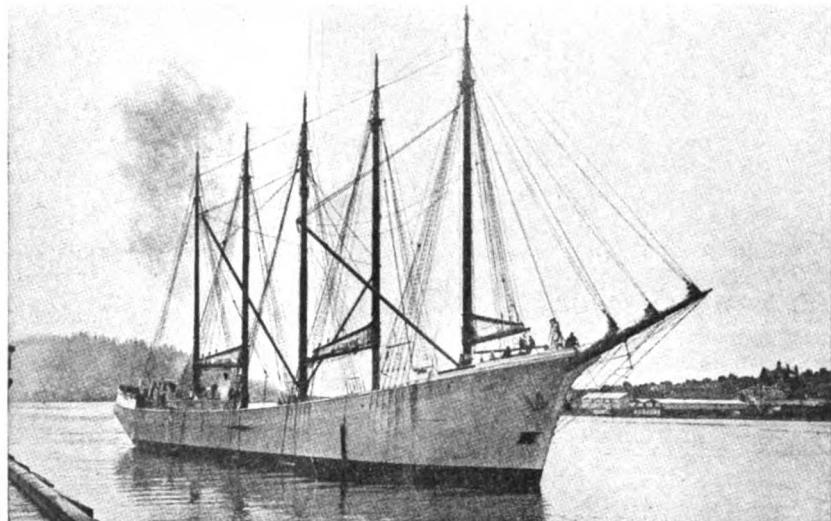
E. R. WARD, Mgr.

OLYMPIA

WASH.

St. Helens Shipbuilding Co.

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M. S. "CITY OF PORTLAND"

**HIGHEST CLASS WOODEN VESSELS
DESIGNED AND CONSTRUCTED**

Chas. R. McCormick Co.

800 Fife Building

SAN FRANCISCO

Grays Harbor Shipbuilding Co.

*Builders of the Famous
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Yards: Grays Harbor, Aberdeen, Wash.

Offices: Securities Bldg., Seattle, Wash.

Geo. W. Miller Co.

719 East Pine St.

SEATTLE, WASH.



6 Cylinder 60 Horsepower Heavy Duty Motors

Prices, \$125 to \$185.00

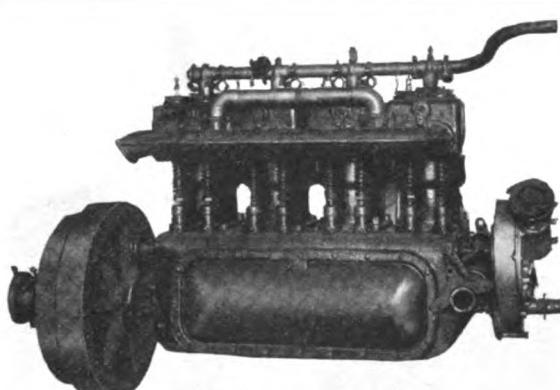
Approximate Over All Dimensions:

Length	50 inches
Width	24 "
Height	30 "
Weight	800 lbs.

The same engine is good for any kind of service
With a large diameter low pitch propeller it makes

The Best Heavy Duty Engine In the World

Or put on a small diameter high pitch propeller and it will give
splendid service for speed work.



4 Cylinder Engines, 20 to 60 Horsepower Heavy Duty

Prices, \$75.00 to \$175.00

Approximate Over All Dimensions

Length	30 to 50 inches
Width	20 to 40 "
Height	22 to 36 "
Weight	350 to 750 lbs.

If You Want to Learn the Truth About Our Engines
ASK US,
Not the Fellow Who Wants You to Buy Something Else



Two Days' Work

Out to the Banks and Back With a Load

The Auto Engine

A Money Back Guarantee

Heavy Duty does not necessarily mean
actual delivery of heavy duty service. The
wear and tear on its parts and the less the
number of small explosions is less destructive
than heavy ones.

We Call Our Engines **Heavy Duty** Engines
work and do it easily with no strain on the

We Are Selling these Engines

Our old customers are sending us new
best of service. Their engines take them to
fuel oil.

The Diameter and Pitch of the Propeller
and heavy duty. Not the size and speed of
is plenty of power, good design, and all
things we give you in full measure at a
if our engines fail to do exactly what we com-

Our Prices Are Low For

Engines represent only a part of our line
get the other parts to keep up our stock. We
them at all. We must price them very low

We must see that our customers get good
ness will soon stop. These are the reasons why
worth four times what we charge for it.

It Is Not What Somebody Says

It's What the Engine Does



Work In One

While the Rest Are Getting Started

Engine Does It

With Every Engine

large bore and slow speed. It means the higher the speed of an engine the less the vibration and strain on the boat. A large engine does more work than a small number of

small engines because they actually do heavy duty work on every boat or engine or any working part.

From California To Alaska

All are saving money and getting the job done right and back and do it with very little trouble.

Our engines will fix the difference between light, medium and heavy duty engines. What you want in an engine is a good engine. We guarantee them in first-class working condition. These engines are reliable, low cost, and agree to refund your money if you are not satisfied.

A Very Good Reason

We must buy lots of engines to keep our business. We must buy good ones or we cannot sell them. We must buy them fast enough.

Our service out of them or our engine business. We must buy them quickly. An engine you buy from us is actually a good investment.

About an Engine That Counts

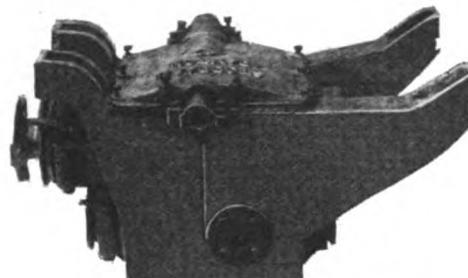
What an Engine Actually Does

Used Engines For Fishing Boats

**Heavy Duty
High Speed
Low Price**

**Burn Distillate and Very Little of It
Reduce Vibration and Are Easy on Boats
Are Small but Powerful
Built for Hard Work and Rough Weather**

THE BEST ENGINES THAT MONEY CAN BUY



Reverse Gear for Trolling

20 Horsepower	\$35.00
40 Horsepower	45.00
60 Horsepower	55.00

3 Speeds Forward, 1 Reverse

Allows your motor to run at normal speed, but slows the boat down to 1 mile per hour under full horsepower if desired.

These are automobile transmissions. Made for hard service and guaranteed to stand the constant strain of their full horsepower load. The third speed ahead is full engine speed. When in lowest speed their pulling power is tremendous but very slow. A dozen big fish cannot stall the engine, and yet when throttled down it uses very little fuel oil.

The reverse on these gears is slow. It will not back up the boat rapidly nor stop quickly; but it will back up slowly.

A little more care is necessary in approaching a landing than with the marine reverse gear, but the advantage for fishing boats is very great, as it enables you to run to and from the banks at high speed. This means early return, quick unloading, time to rest and back on the banks for the next run.

This means Dollars to the Fisherman

Our engines all have one-way clutches, so that the combination is complete.

You Fish For Profit. The Power Plant that brings you the most profit and yet costs the least to buy and the least to keep running is the best and cheapest for you to get.

Write for the Booklet on Boat Engine Facts

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719 East Pine St.

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SHIP LUMBER

For Steel and Wooden Vessels

SIX MILLION FEET SUPPLIED IN PAST EIGHT MONTHS

We Are Prepared to Handle Your Order Promptly Regardless of Size

INQUIRIES SOLICITED

SHIP BUILDERS' LUMBER CO.

LEARY BUILDING, SEATTLE, WASH.

R. W. DE WEESE, Mgr.

Phone Main 4519

J. S. LONG, Sec.

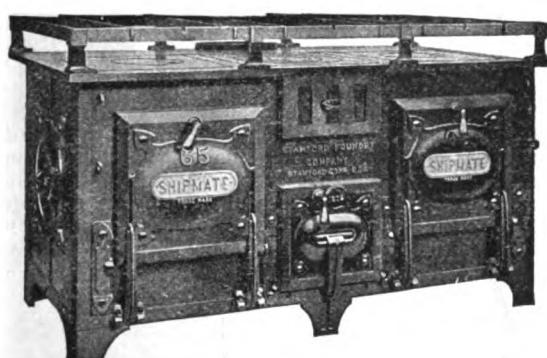
Repair Your Broken Machinery at Once

NO DELAYS

By Using a Welding Plant, \$60.00

Transmission - Shop Machinery - Shipyard Equipment

PERINE MACHINERY CO., 209 First Ave. So., Seattle



SHIPMATE RANGES

10 Sizes

14 Numbers

Good shipkeeping is as necessary as good housekeeping, requiring the same continual supervision, repairing and replenishing.

How is the range in your galley?

If it is time to get a new one, the SHIPMATE with its long record of good sea-going qualities must surely commend itself to you.

Made by

THE STAMFORD FOUNDRY COMPANY

Established 1830

Stamford, Conn.

PACIFIC COAST AGENCIES

HOLBROOK, MERRILL & STETSON, Sixth, Bluxome & Townsend Sts., San Francisco, Cal.

PACIFIC NET & TWINE COMPANY, Pier 8, Seattle, Washington.

F. W. ISHERWOOD, 17th & Upshur Sts., Portland, Ore.

THE CANADIAN FAIRBANKS-MORSE COMPANY, 798 Beatty St., Vancouver, B. C.

Waterproof Paint Co.

Manufacturing a specially prepared paint (patent pending) which we claim to be absolutely waterproof, rustproof, antifouling, worm and teredo-proof, will dry under water or in the ground. Adapted for both wood and steel vessels, bunkers and damp places. Manufactured in two colors—black and dark brown. Demonstration and samples upon application.

Easily Applied. Economic in Use, Moderate in Cost.

Factory 8th Ave. and Virginia St.

Phone Elliott 4984

Seattle, Wash.

CAPITAL REQUIRED

For the Manufacture of a Heavy Oil Engine which is Revolutionary both in operation and cost of construction. Demonstration any time, and most searching investigation by experts welcomed. Application for manufacturing on royalty basis solicited. Have bona fide orders for these engines. Patent Applied for on system of fuel injection.

BELSHAW ENGINE CO. Everett, Wash.

When Your Ship Needs A

C & W WIRELESS SET

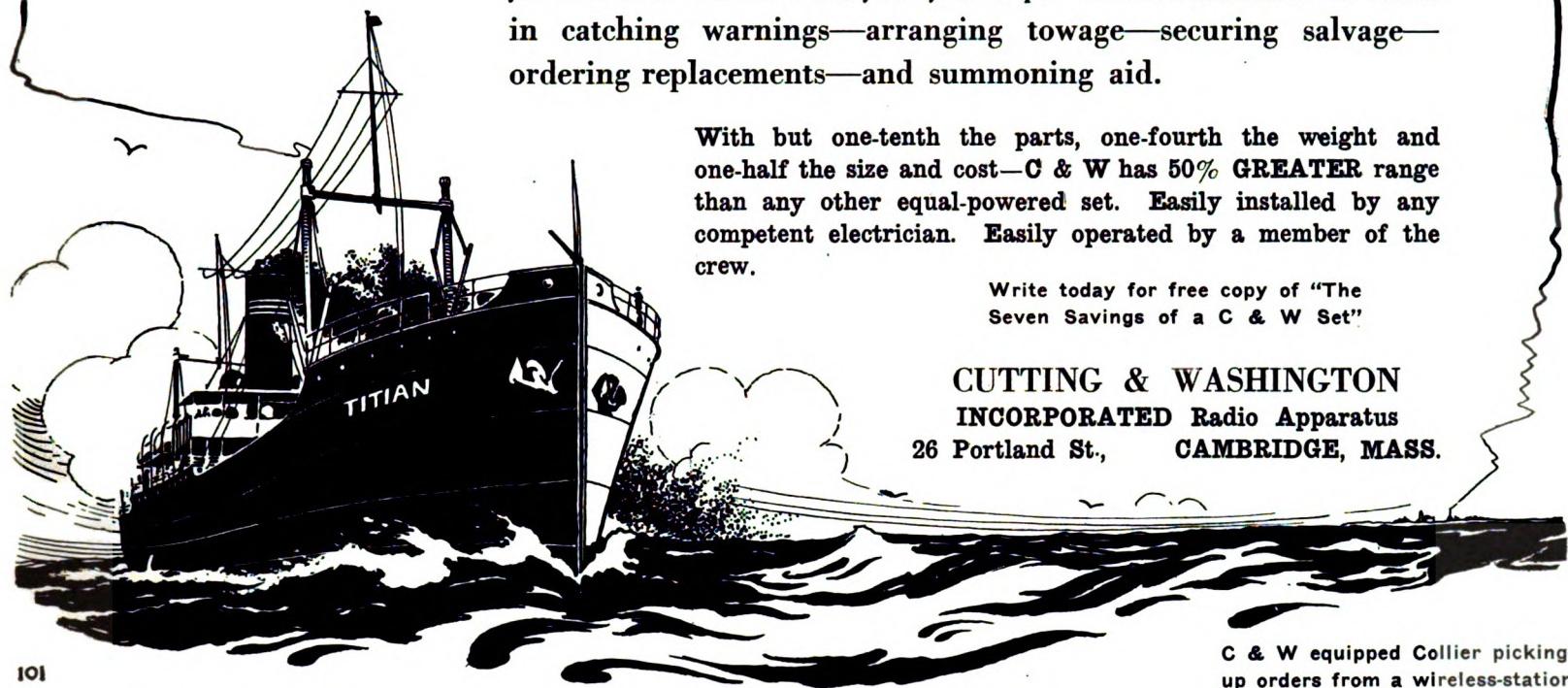
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Must your ship stand in for orders? Losing time—and logging useless extra miles? Or can she get her orders via WIRELESS—many miles at sea? *This saving alone will pay for a C & W SET on the first few trips.* Not to mention its value in catching warnings—arranging towage—securing salvage—ordering replacements—and summoning aid.

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C & W equipped Collier picking-up orders from a wireless-station

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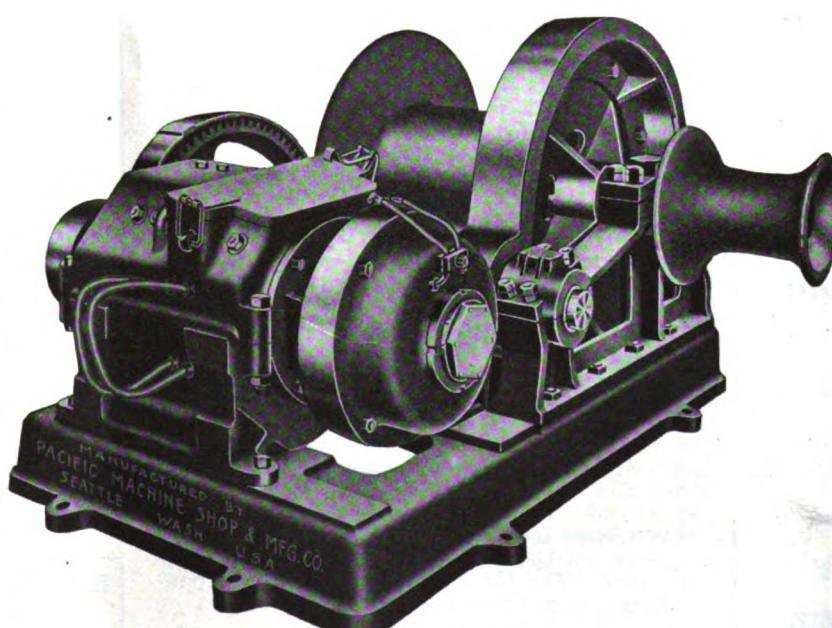
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Automatically protected against damage from overloading.

A single drum winch, controlled by one lever.

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Sumner Steam Cargo Hoist

A New, 1917 Model

Cylinders

8" x 10"; steam pipe, 2"; exhaust pipe, 2½"; self-draining piston valves.

Manifold for Steam and Exhaust

is lowest part of cylinders and valves, thereby draining all condensation from exhaust.

With Balanced Throttle Valve

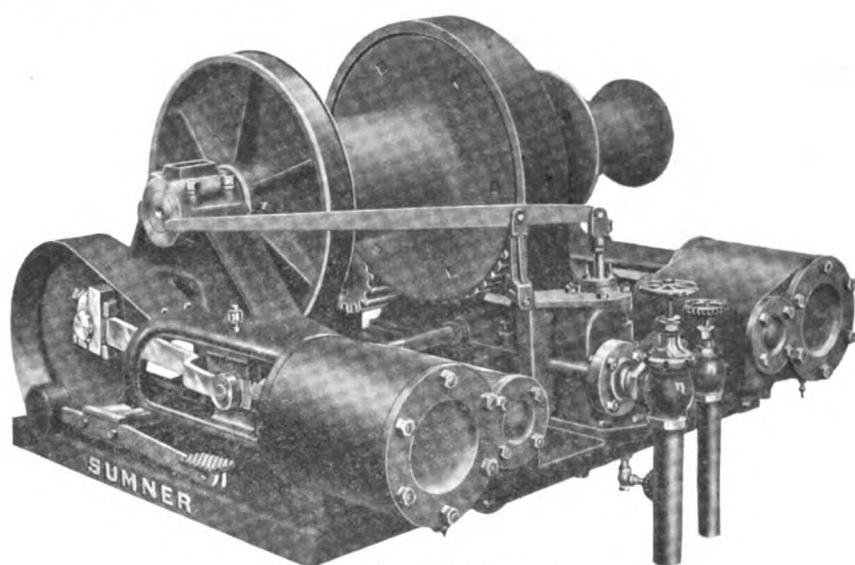
securely bolted thereto. Lever in any position desired.

Main Shaft

Forged steel, 4 3/16 in dia.

Extended Box

with 13" bearing, supporting main shaft the entire distance between main gear and gypsy head.



1917 Model, No. H32

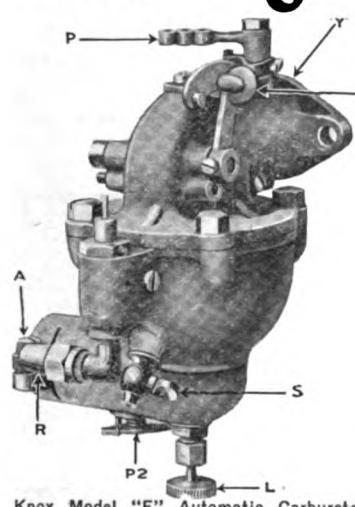
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Knox Model "E" Automatic Carburetor

OUR KNOX MODEL "E" Automatic Carburetor will handle your distillate fuel equally as well as any other carburetor will handle gasoline. No heating or other auxiliary devices required. It is accomplished by our method of breaking up the fuel and automatically mixing the vaporized fuel with warm air.

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Agents wanted. Order at once; start your demonstration before your territory is taken up.

J. T. Sampson, of Raymond, Washington, after applying for the agency, and after testing out his first Knox Model "E" Distillate Carburetor, wires as follows: "Carburetor perfectly satisfactory in every respect. Writing."

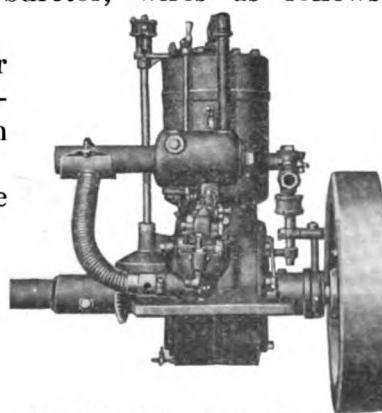
Geo. D. Campbell, of Nome, Alaska, writes as follows: "I find your carburetor even better than I expected, and it works successfully on our Pacific Coast distillate, which is universally used in preference to the other by-products of crude oil, on account of its cheapness."

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Circulars mailed on request.

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Knox Model "E" Distillate Carburetor

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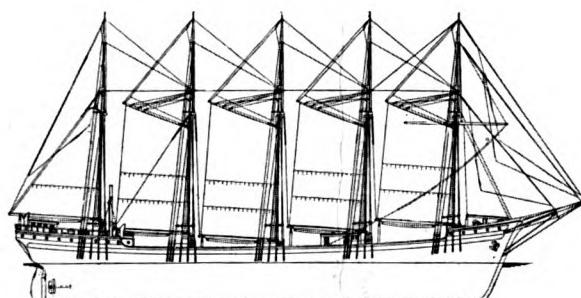
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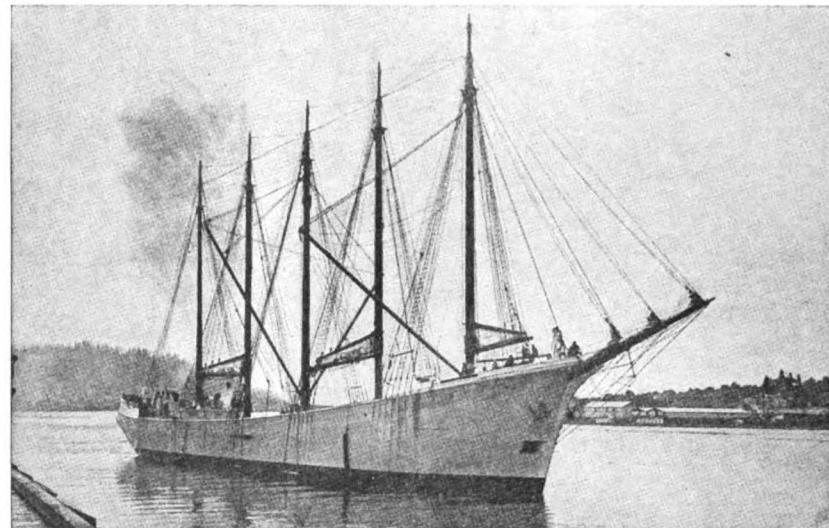
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Fisherwoman (nonchalantly)—"All right, Skip. She washed the crowd out o' the lee bunks an' flooded the fo'c'sle. Swept' all th' cook's pots off'n his stove—"
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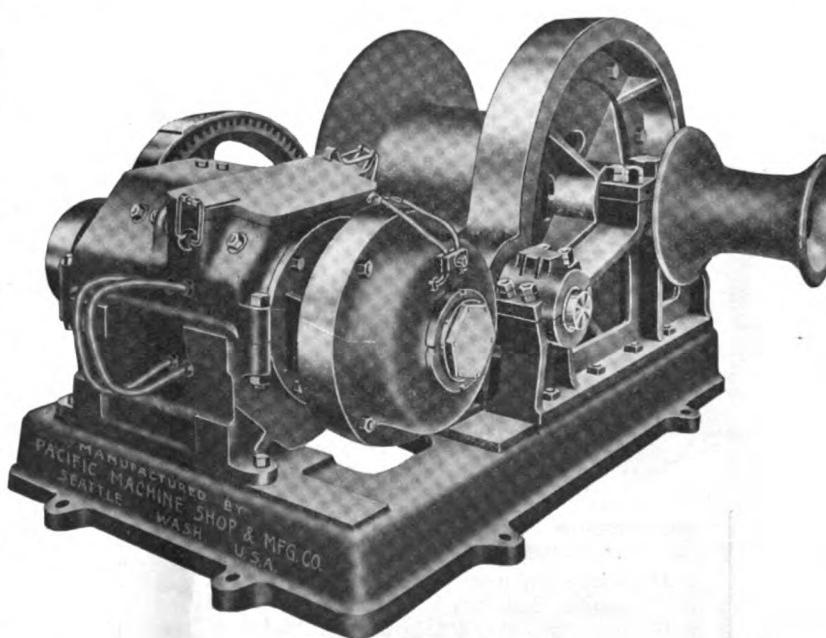
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Any load can be lowered as fast or as slow as desired.

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If the current is cut off the load will NOT drop.

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Sumner Steam Cargo Hoist

A New, 1917 Model

Cylinders

8" x 10"; steam pipe, 2"; exhaust pipe,
2½"; self-draining piston valves.

Manifold for Steam and Exhaust

is lowest part of cylinders and valves,
thereby draining all condensation from
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With Balanced Throttle Valve

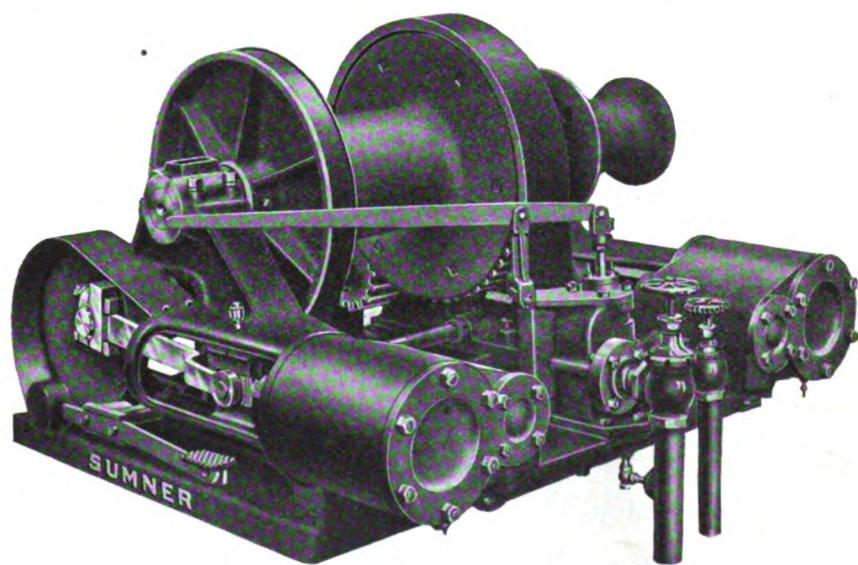
securely bolted thereto. Lever in any
position desired.

Main Shaft

Forged steel, 4 3/16 in dia.

Extended Box

with 13" bearing, supporting main shaft
the entire distance between main gear
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1917 Model, No. H32

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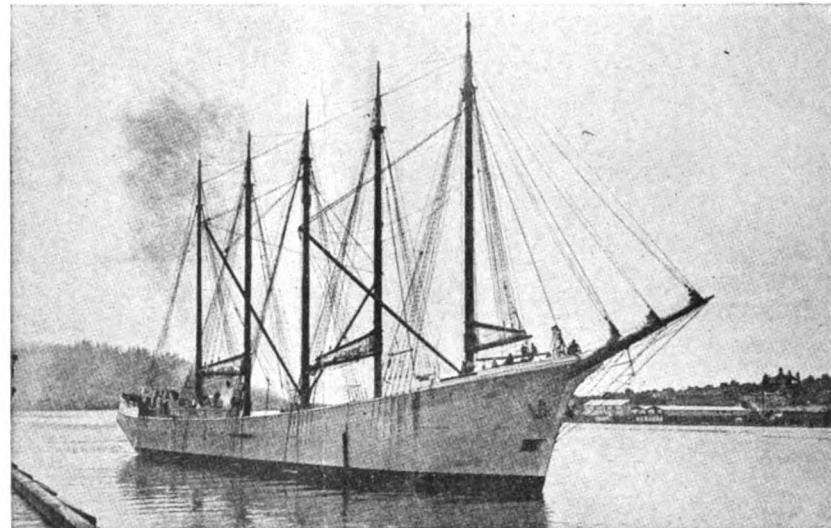
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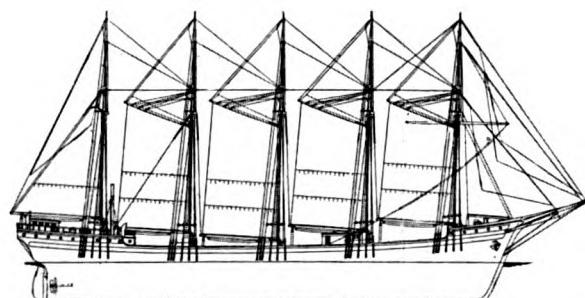
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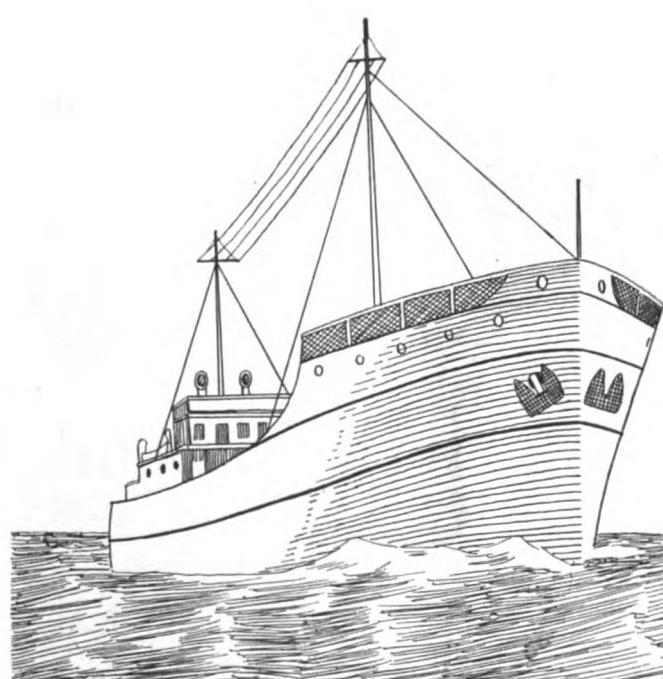
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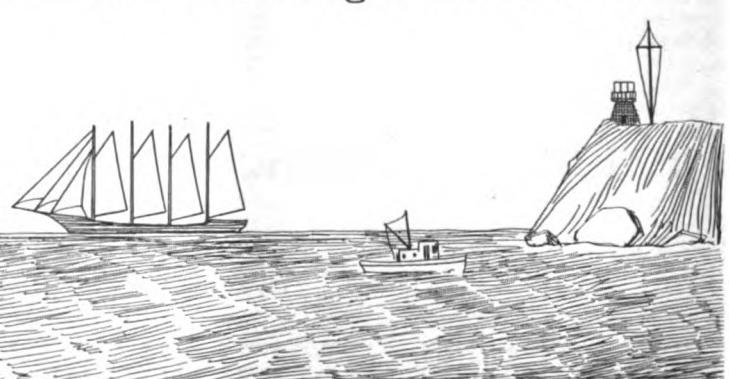
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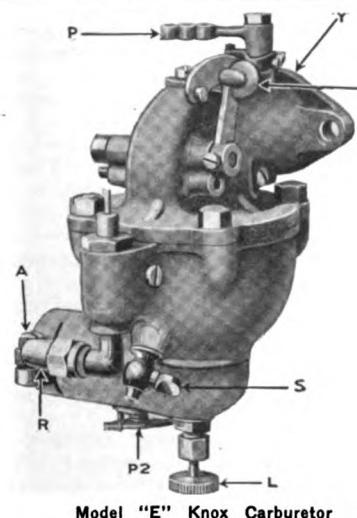
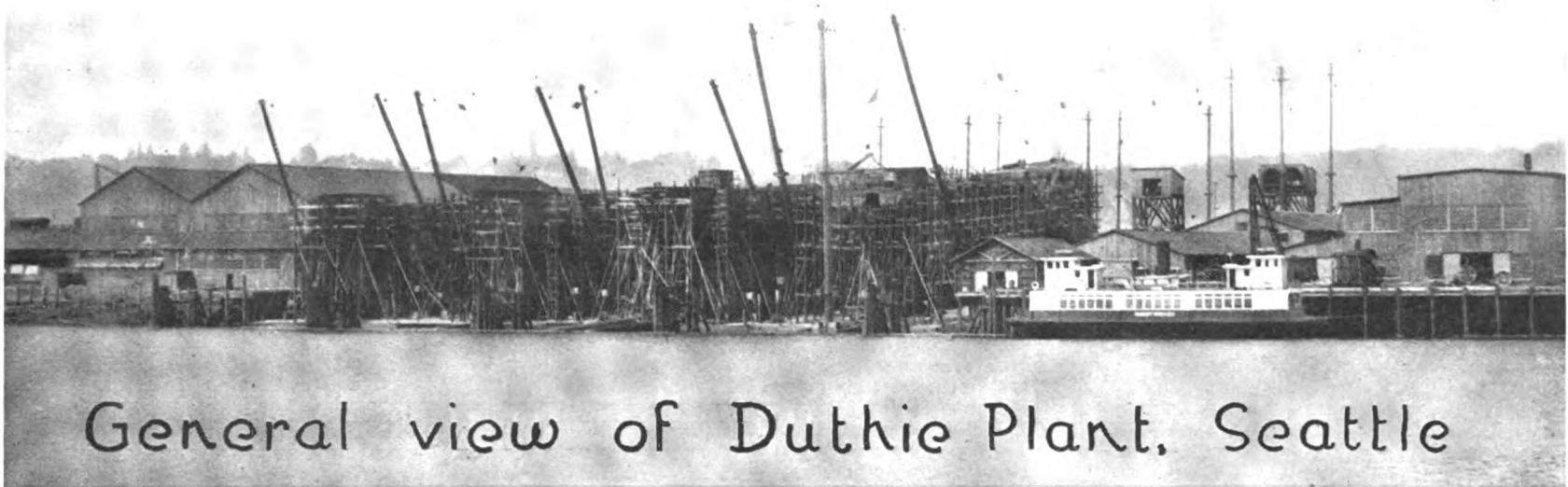
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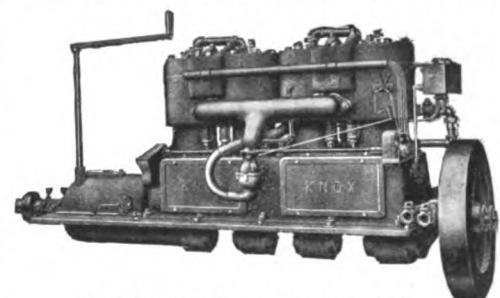
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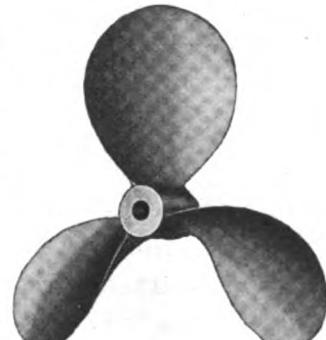
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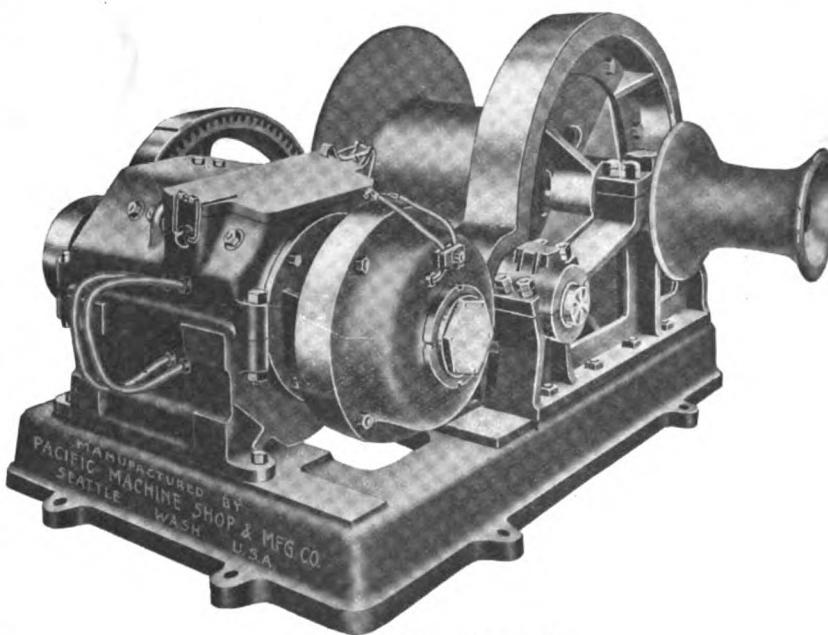
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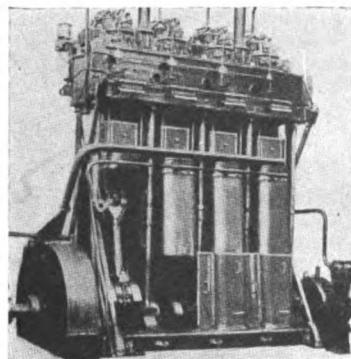
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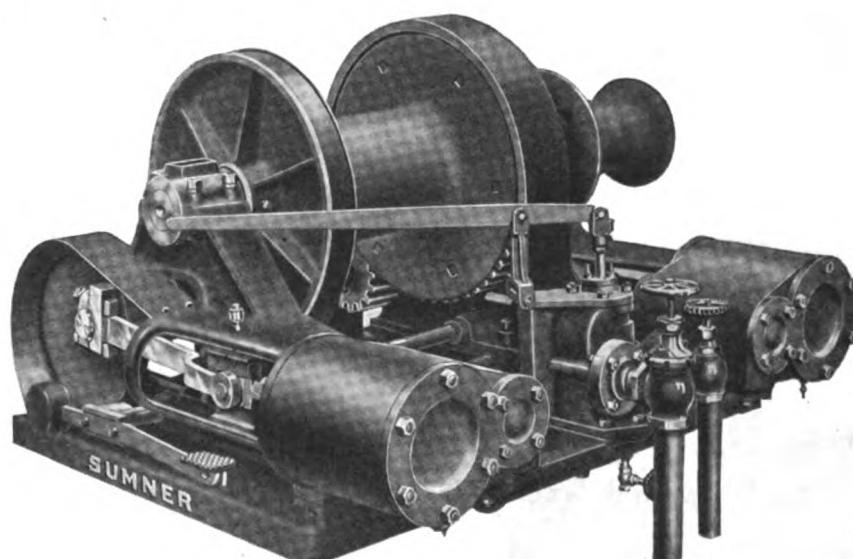
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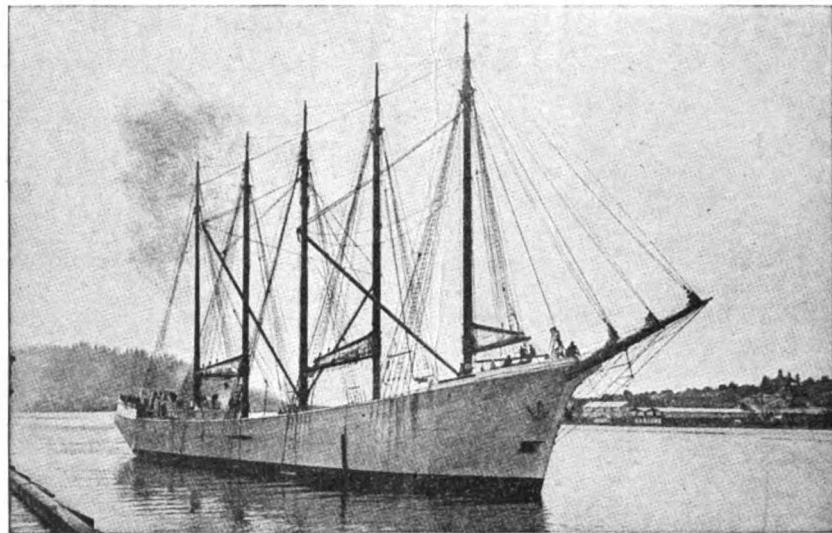
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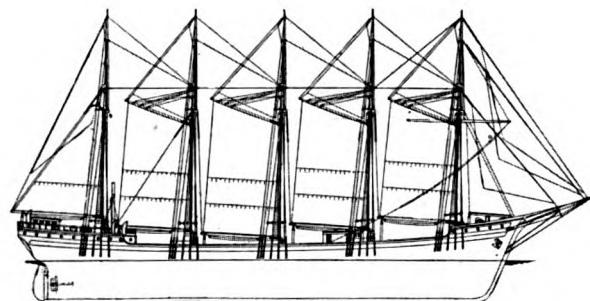
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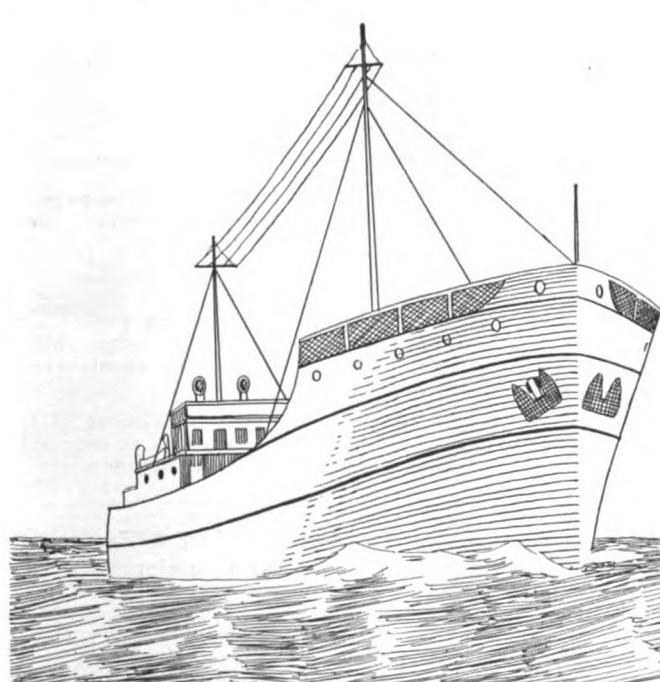
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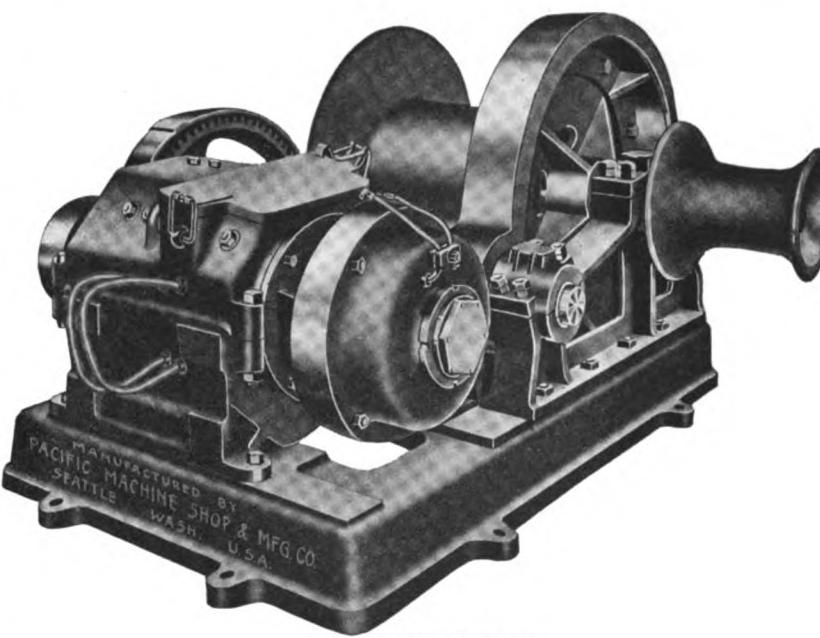
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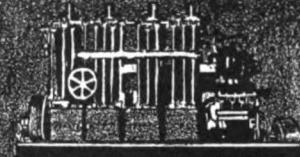
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They deliver most power and
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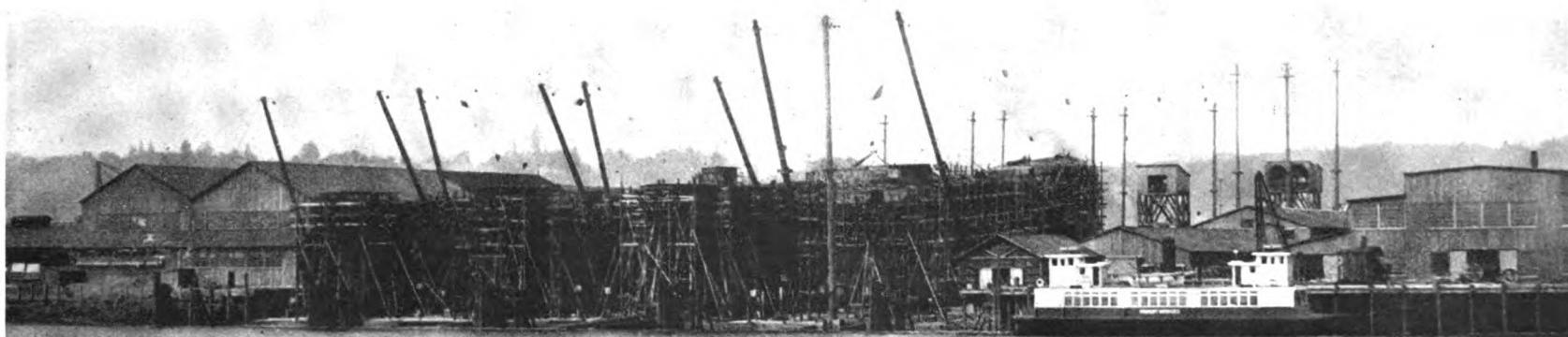
SHIPBUILDERS and ENGINEERS

Builders of Steel Steamships

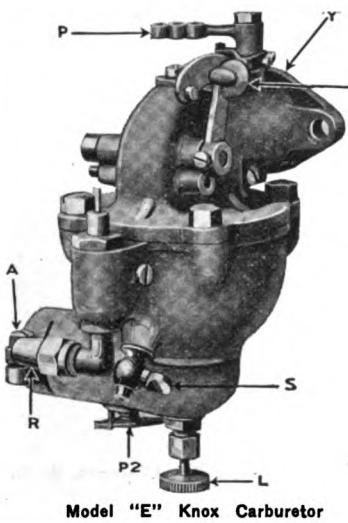
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General view of Duthie Plant, Seattle



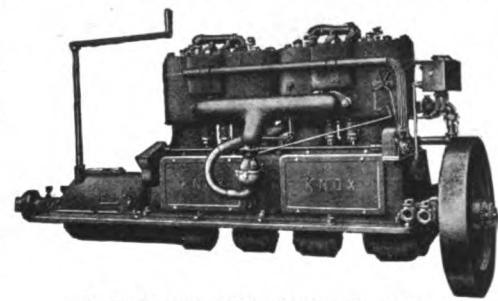
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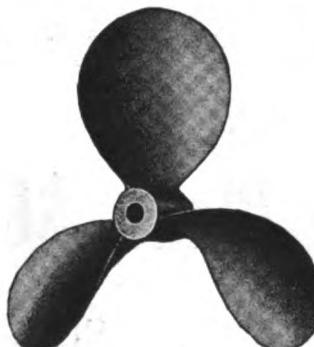
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50 H. P., 7x8, Knox Heavy Duty Motor

HYDE TURBINE TYPE PROPELLERS

From 8 in. to 20 ft. in Diameter.
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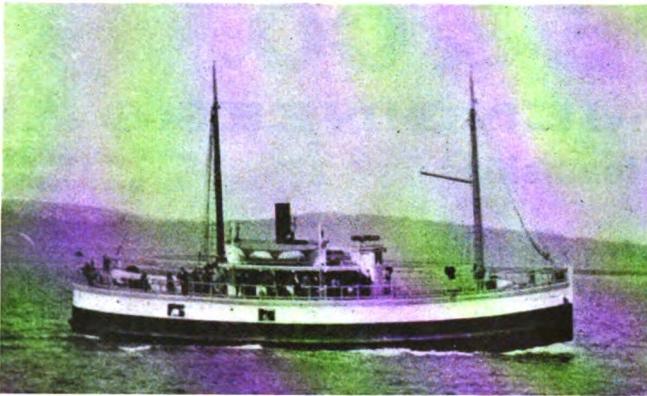
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The Leading Publication of the British Empire dealing exclusively with the Motor Ship, Motor Boat and Aviation industries, invites you to become a subscriber. Foreign, \$1.50; Domestic, \$1.00.

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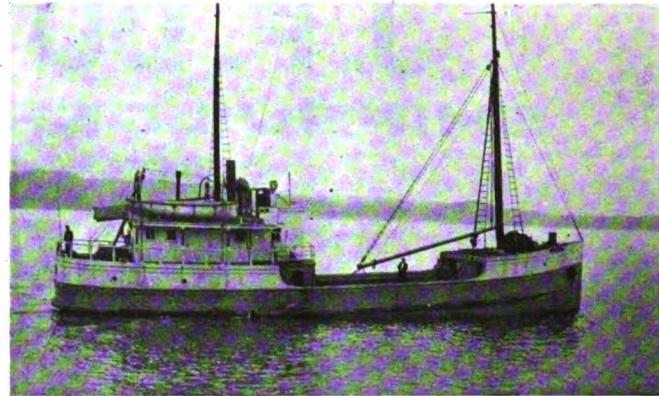
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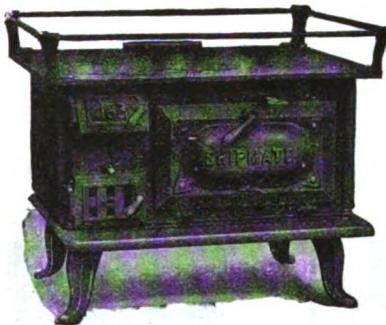
Built 1900. Joseph Supple, Portland, Oregon.
Gross tons, 232. Net, 131.
Length 100'; beam, 24'; depth 8'.
Cargo capacity, 175 cubic tons. Dead weight, about 165 tons.
Draft, Light, Forward, 5' 6"; Aft, 8'.
Draft, Loaded, Forward, 8'; Aft 10'.
Power:
Fore and Aft Compound Condensing Type Engine. Nominal h. p. 100. Indicated 300. Willamette Iron & Steel Co., Portland, Oregon.
Cylinders, 10x20x20. 20" Cylinder, low pressure.
Revolutions, 125.
Boiler—Kingsford Foundry & Machine Works. Scotch Marine. Built 1914. Single end, 8'x10' 6" diameter. Working pressure 160 lbs.
Average speed, 9 knots.
Electric lighting plant.
Good condition. Equipped for sea.
Immediate delivery, Astoria, Oregon.
Thorough inspection invited.



GAS SCHOONER "PATSY"

Built 1911. Kruse & Banks, North Bend, Ore.
Port Orford Cedar and Fir.
Gross tons 155; Net 123.
Length 96' 6". Beam 24' 6". Depth 7' 6".
Carrying capacity, about 200 tons, dead weight.
Draft, Light, Forward 3'; Aft 8'.
Draft, Loaded, Forward 7'; Aft 9'.
San Francisco "Standard" Gas Engines, Twin 110 h. p. each.
Frisco "Standard" 16 h. p. Hoist and Winch.
10 h. p. Auxiliary Frisco "Standard," for pumps and electric light plant.
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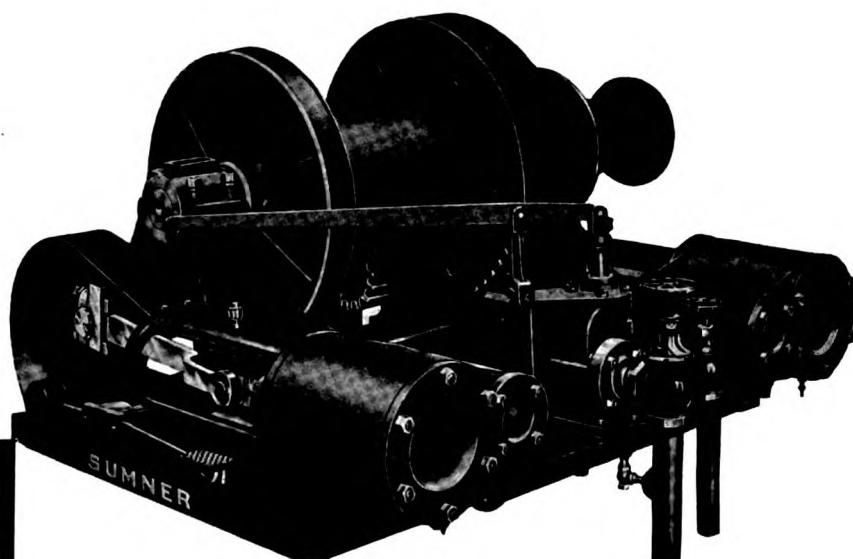
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4. Dujardin & Co., Lille, France.
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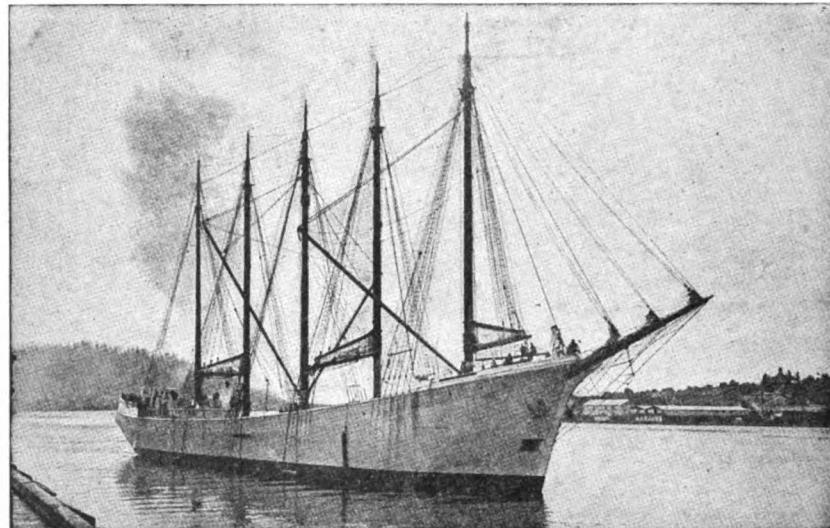
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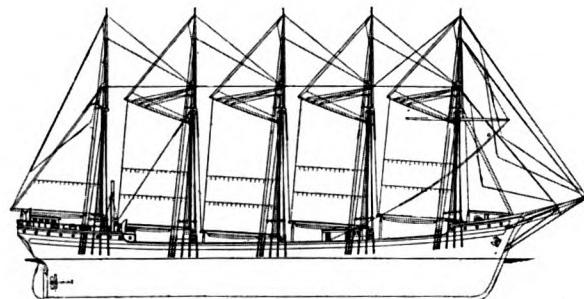
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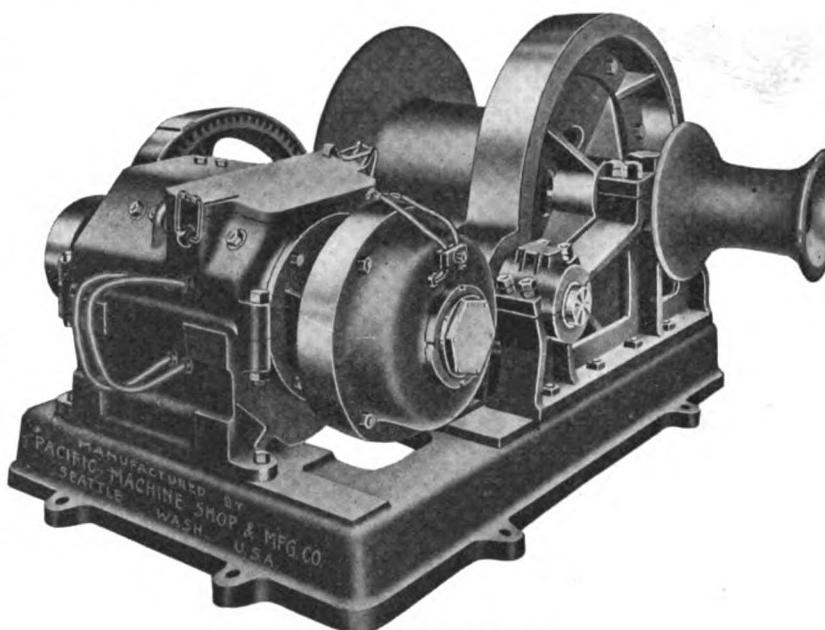
*Direct Geared
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Automatically protected against damage from overloading.

A single drum winch, controlled by one lever.

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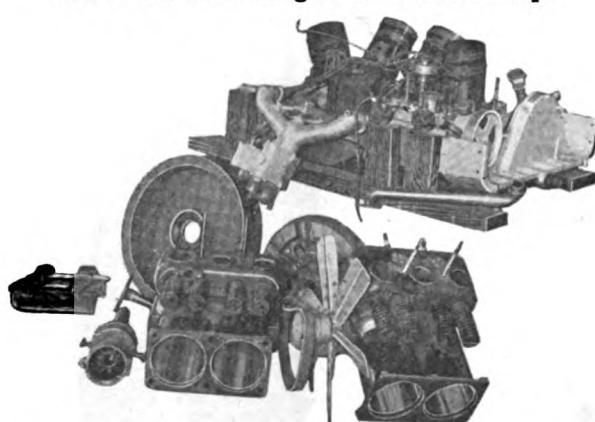
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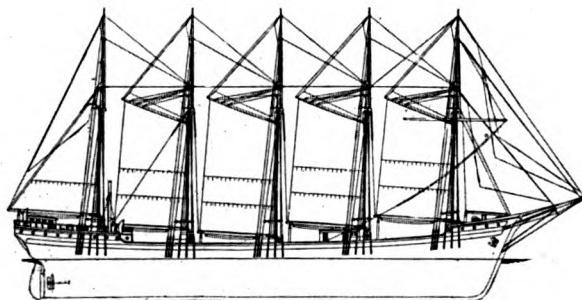
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A Centrally Located, Well Equipped Yard, Capable
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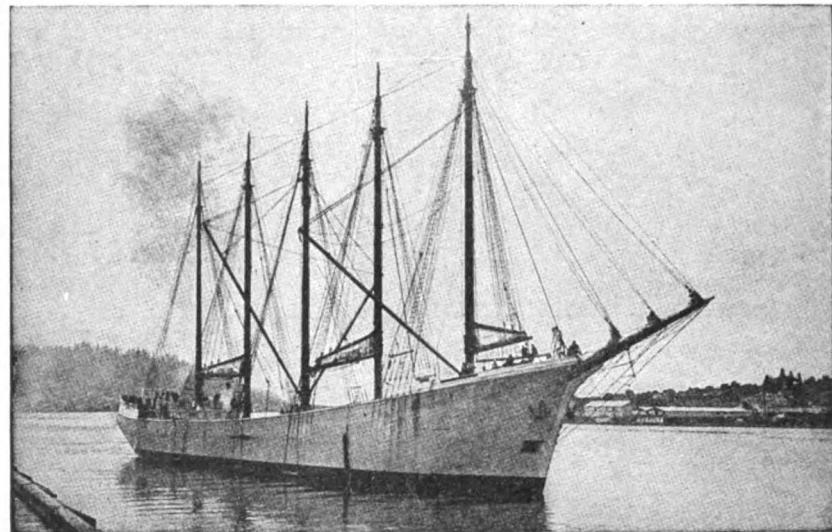
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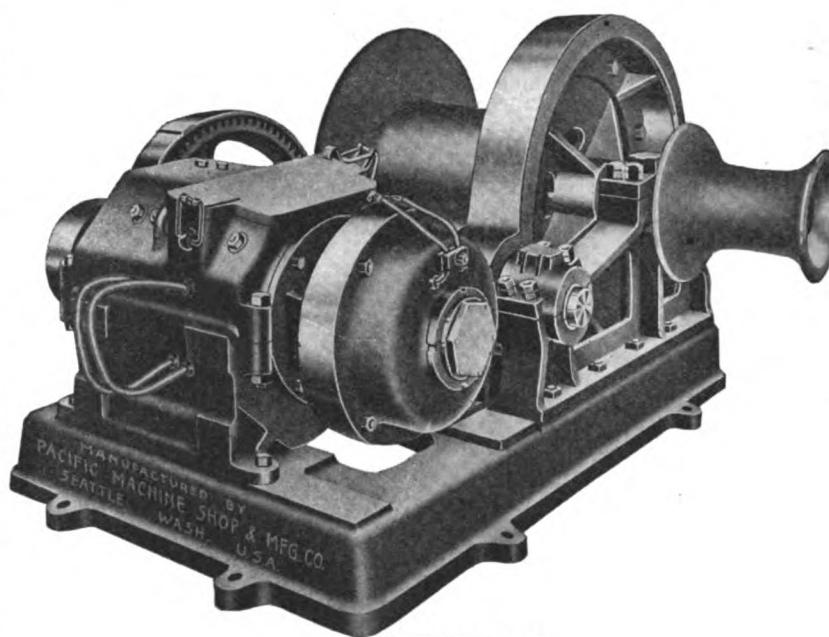
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Absolutely Waterproof*

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Automatically protected against damage from overloading.

A single drum winch, controlled by one lever.

The fastest, simplest and most economical cargo handling equipment for Motorships, full powered and auxiliary, steamships and sailing vessels, loading lumber, coal or general cargo.



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sets are reliable, powerful and fool-proof. They can be installed on any boat—old or new, operated by a member of the crew and paid for out of the savings they effect.

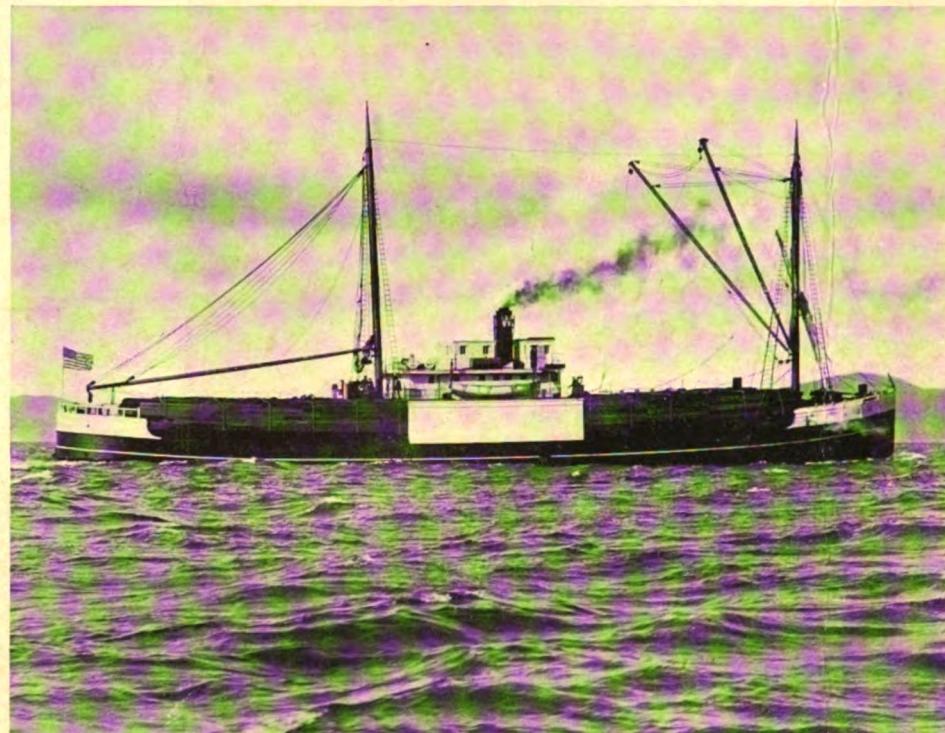
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Craft under construction and to be fitted with Bolinder Engines in the United States alone aggregate over 130,000 tons; Bolinder Engines now in service, over 12,000.

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THE STANDARD FOR HOT-BULB ENGINES

An example of the ruggedness of the Bolinder's engine was displayed in the case of the M. S. "Astri" recently. This vessel encountered a hurricane off Mazatlan and became severely strained, resulting in the flooding of the engine-room—the water rising over the tops of the cylinders. After the storm the engine room was pumped out and the engines started, bringing the ship to port under her own power.

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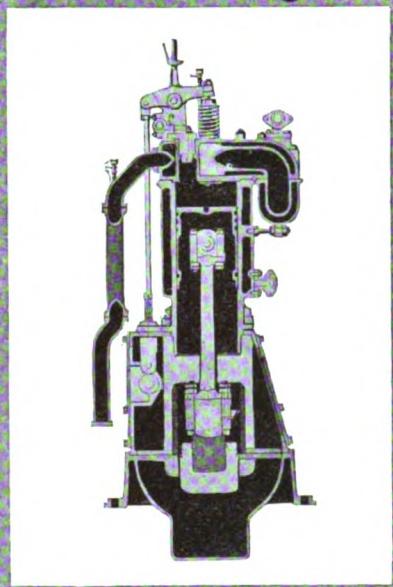
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HEAVY DUTY
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Standardized and Interchangeable Construction

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SEPARATE CYLINDER HEADS
LONG CONNECTION RODS
CAUSE LESS WEAR OF
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WATER BY-PASSES FROM
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PLATES
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ACME PERFECTION

PLASTIC BRONZE
BEARINGS
OVERHEAD VALVES
RESULTING IN LOWER
FUEL COST AND GREATER
POWER
MULTIPLE DISC SPUR GEAR
TYPE FRICTION CLUTCH
PISTONS REMOVABLE
THROUGH CRANK CASE
OR ABOVE AS PREFERRED
SLOW RUNNING
ARRANGEMENT
AN ECONOMICAL
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OFFICE & WORKS
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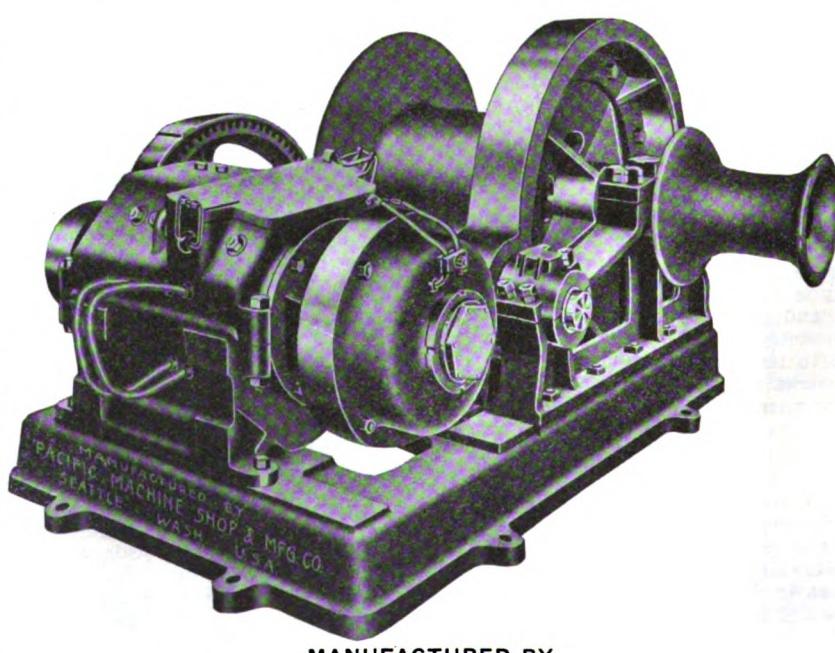
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A single drum winch,
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The fastest, simplest and
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Motorships, full powered
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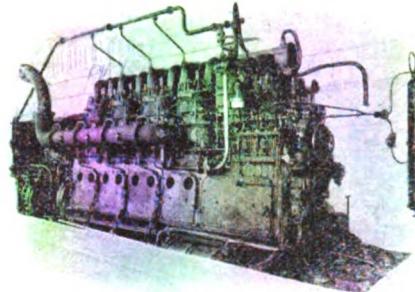
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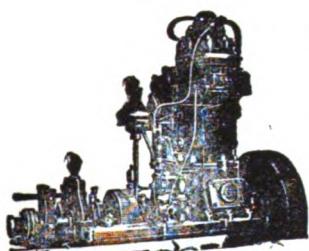
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Lost minutes mean lost dollars.

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The boat owner who installs CUTTING & WASHINGTON apparatus pays for his equipment once and for all from the savings it effects. The boat owner whose boats are not equipped with wireless loses, every few months, more than the cost of CUTTING & WASHINGTON equipment.

You will pay for wireless on your boats whether you buy it or not—the question is whether you will buy it and pay once, or not buy it and pay many times. We respectfully submit the question to your better judgment.

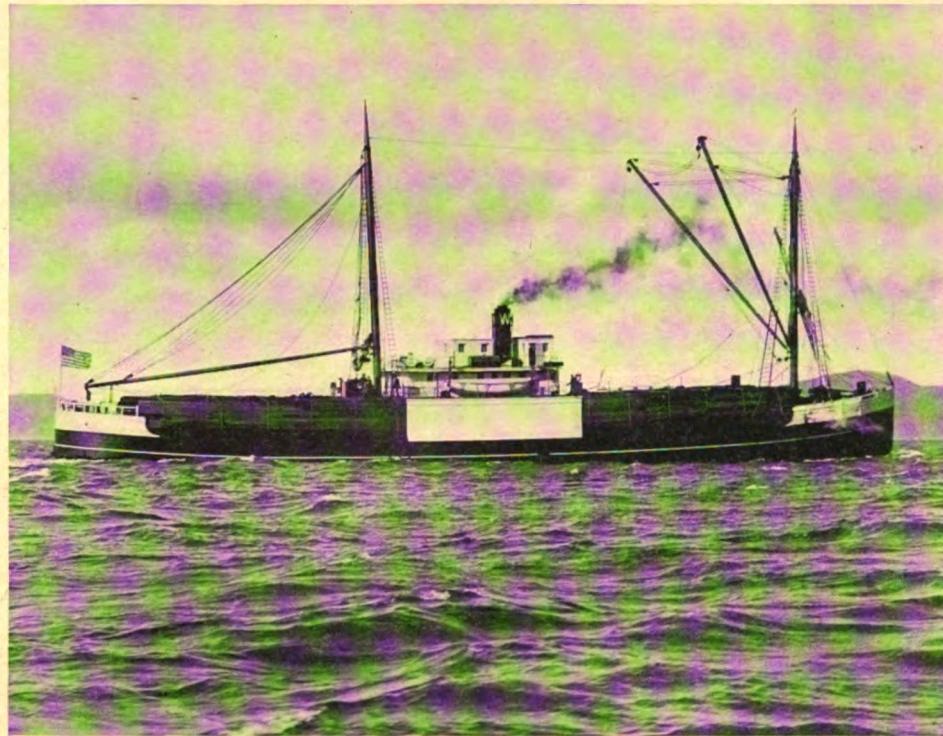
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Now in Use in All Parts of the World

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E. K. Wood Lumber Company's M. S. "Sierra" equipped with two 320 b. h. p. Model "M-11" "Bolinder" Fuel Oil Engines, leaving San Francisco for Valparaiso with 1,250,000 feet of lumber and sufficient fuel for round trip.

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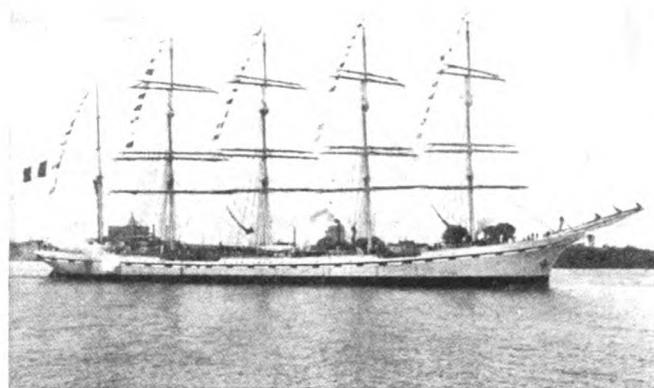
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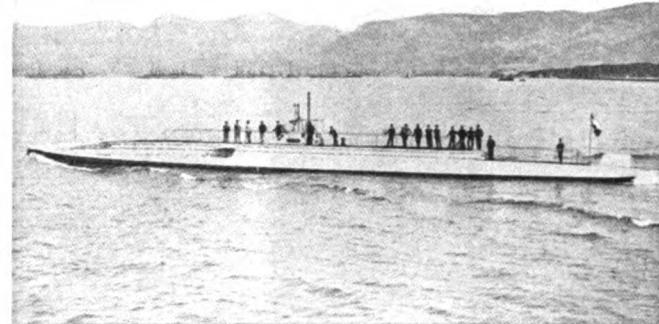
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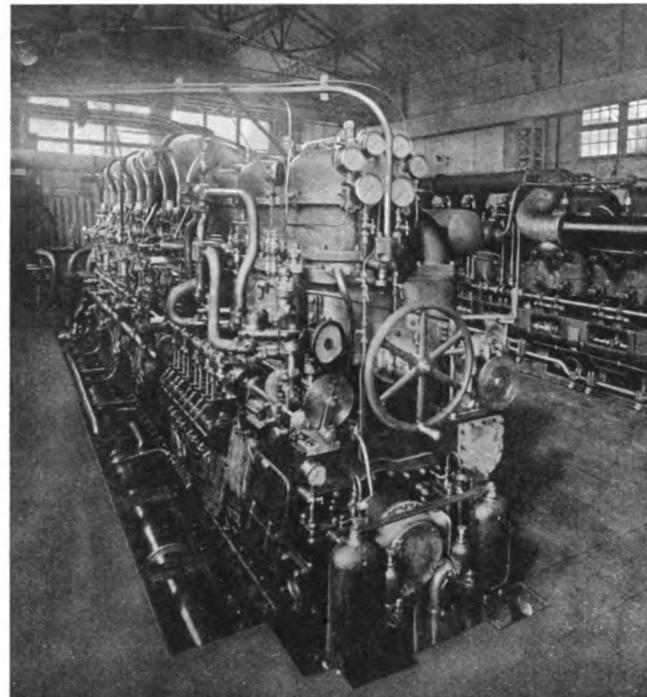


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700
1500
and
2400
H. P.

For **ONE** Motor
(Submarine Type)



A SCHNEIDER 1500 H. P. DIESEL MARINE ENGINE FOR SUBMARINES

LIGHT WEIGHT

(46 lbs. per B. H. P.)

STRONGLY BUILT

EFFICIENCY

(0.400 lb. of Fuel Oil per B. H. P.)

Two and Four-Cycle Diesel Engines for War and Merchant Ships



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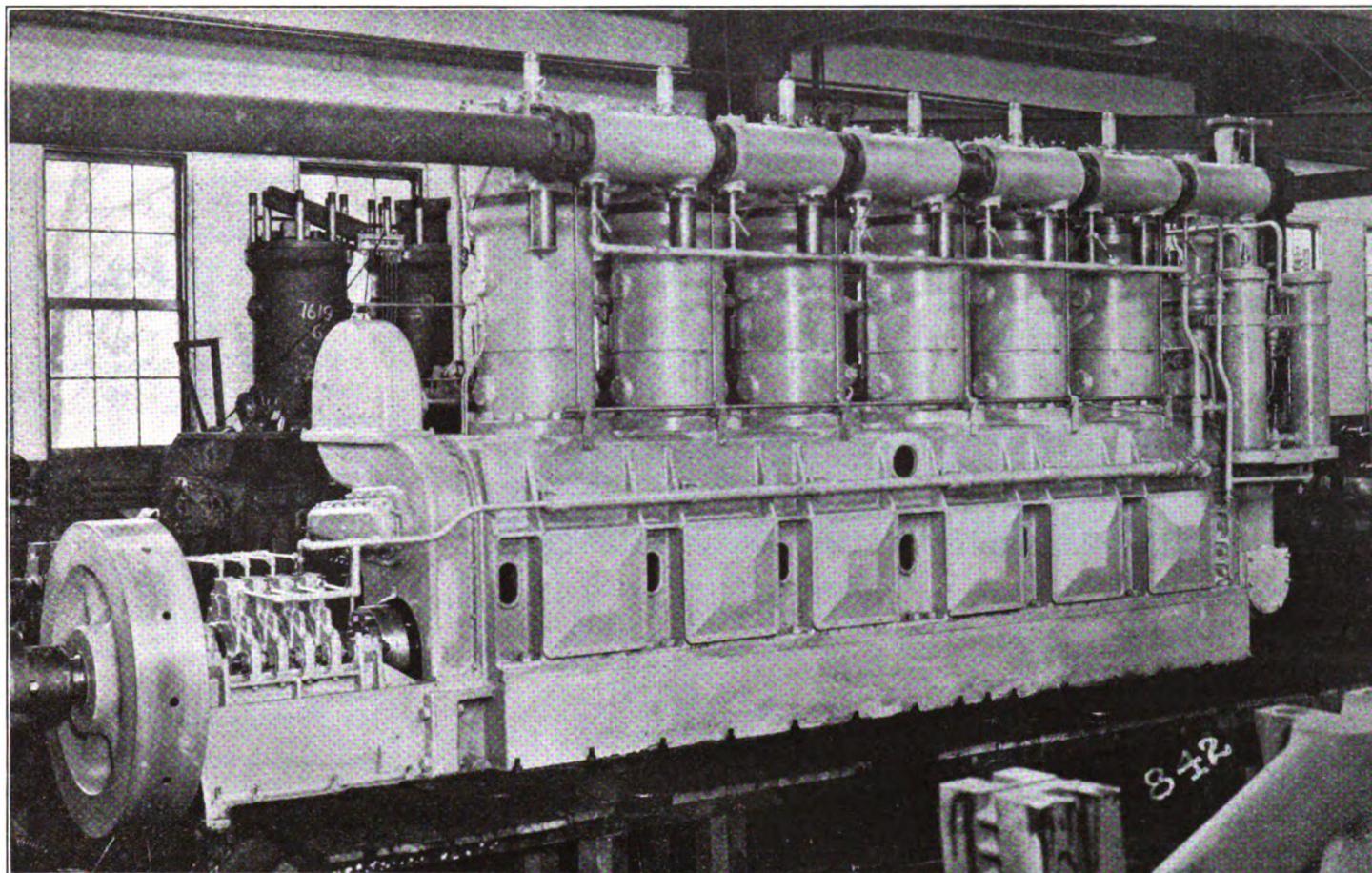
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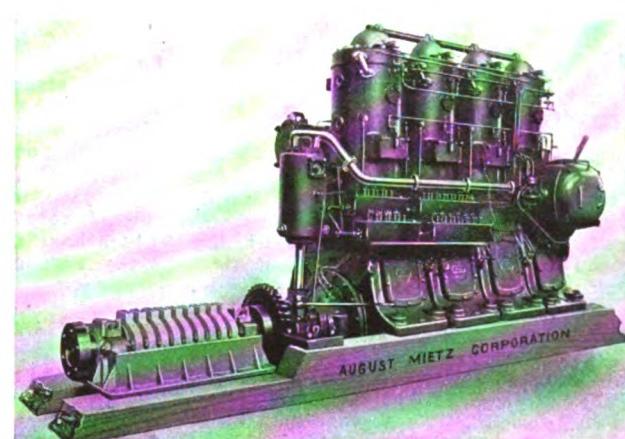
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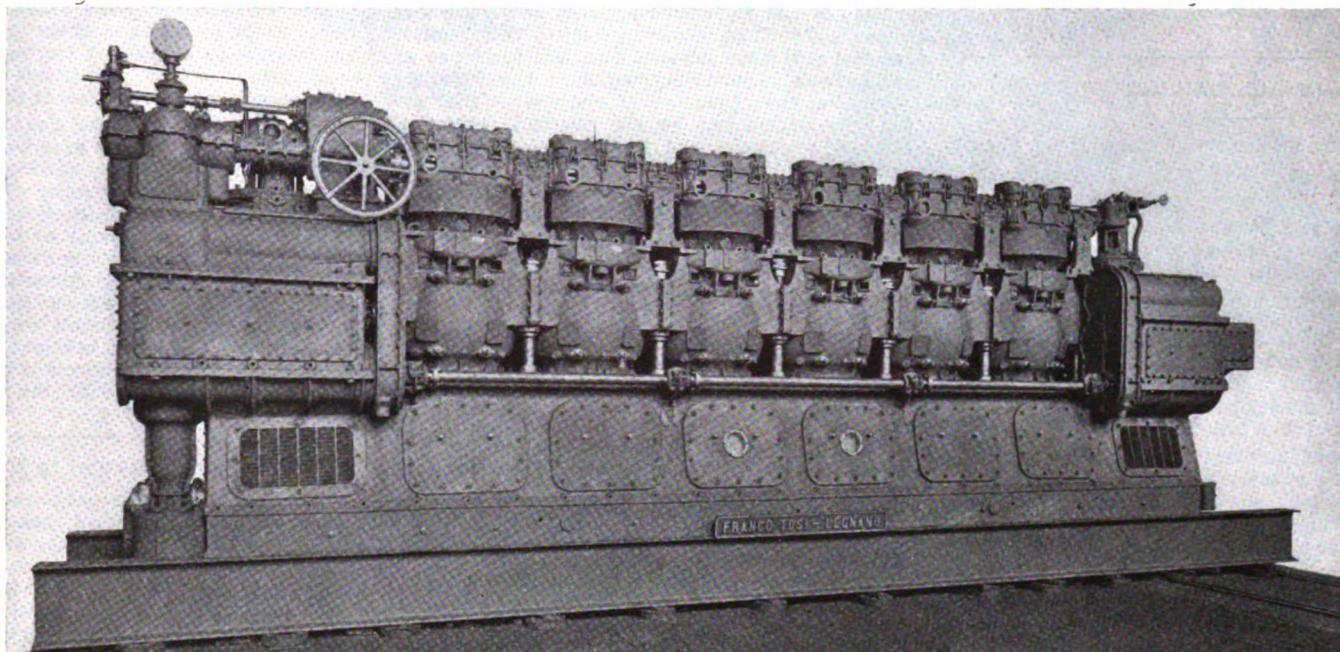
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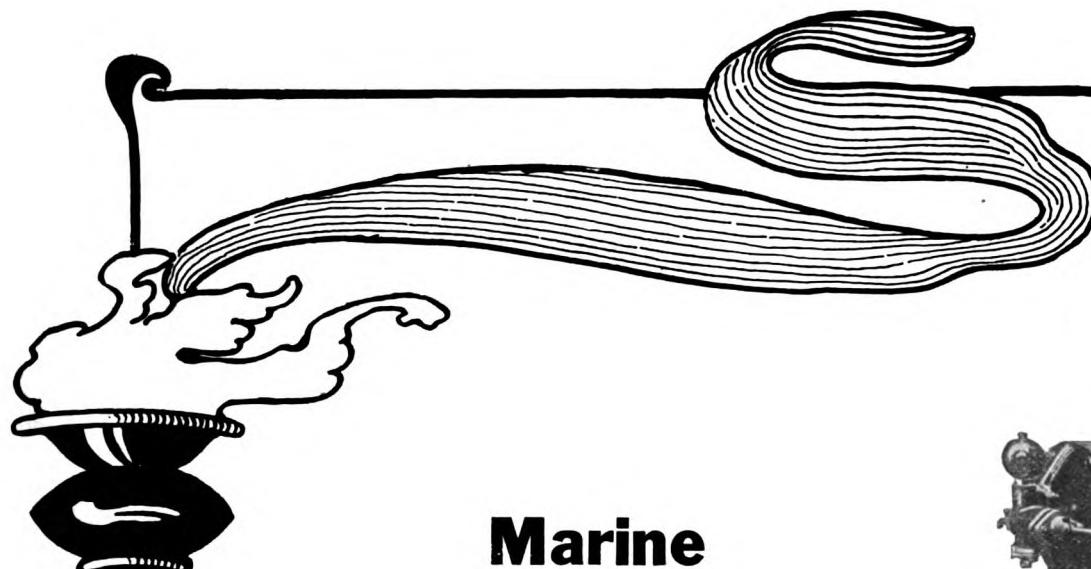
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SHIPYARD: Taranto, Italy

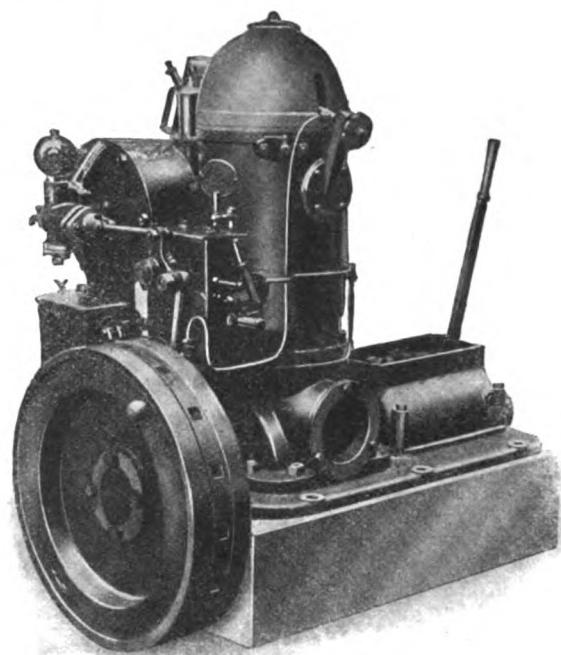
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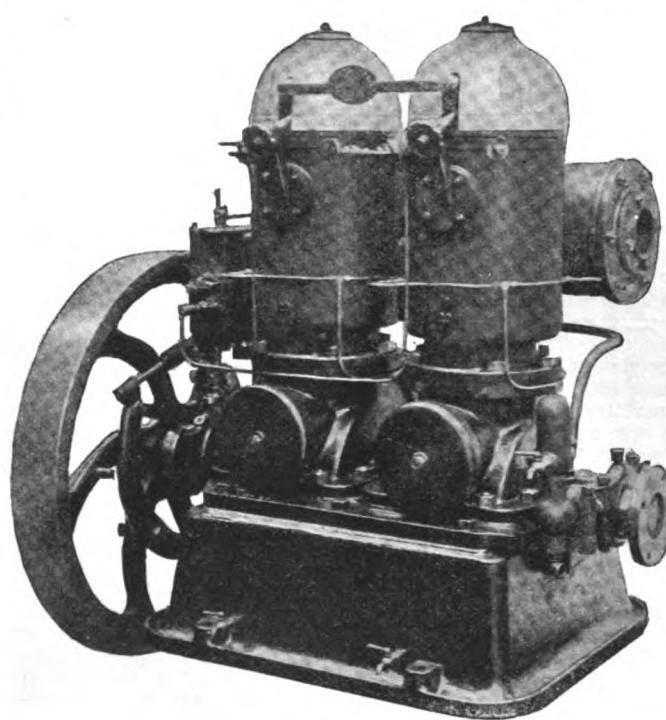
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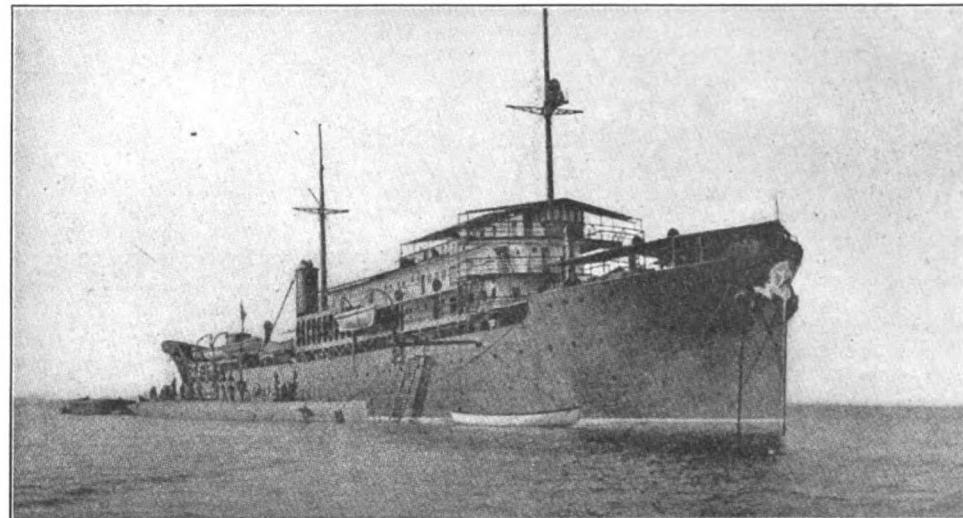
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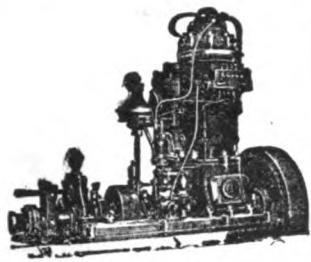
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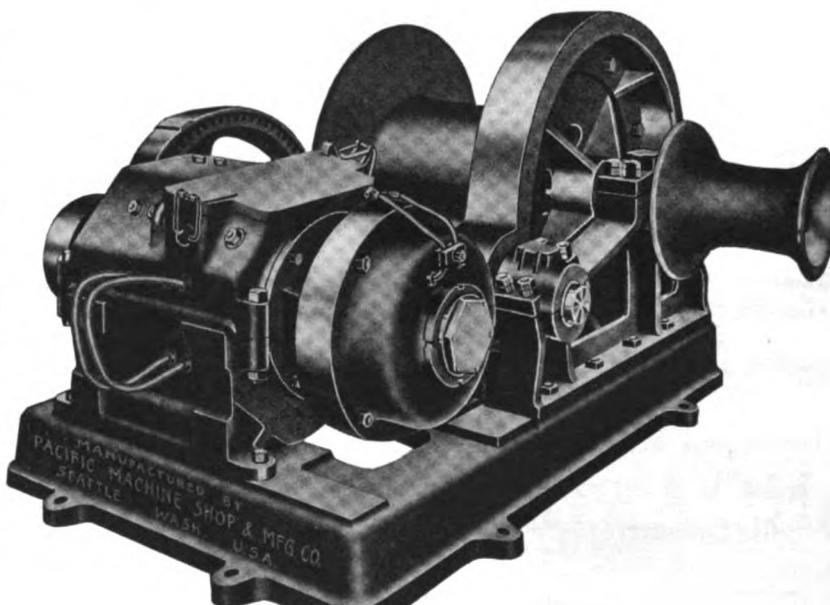
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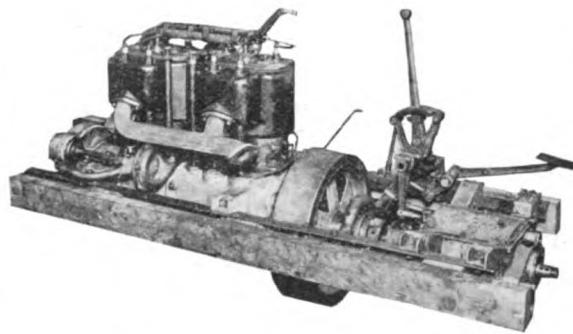
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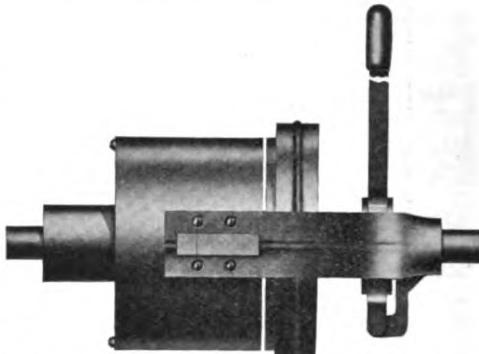
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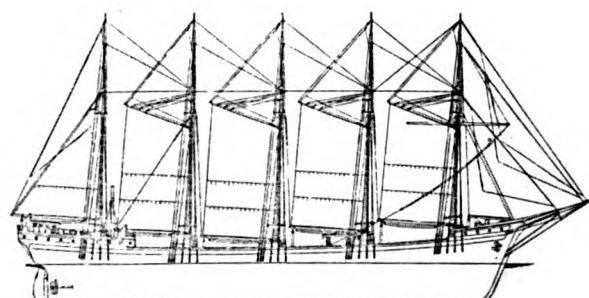
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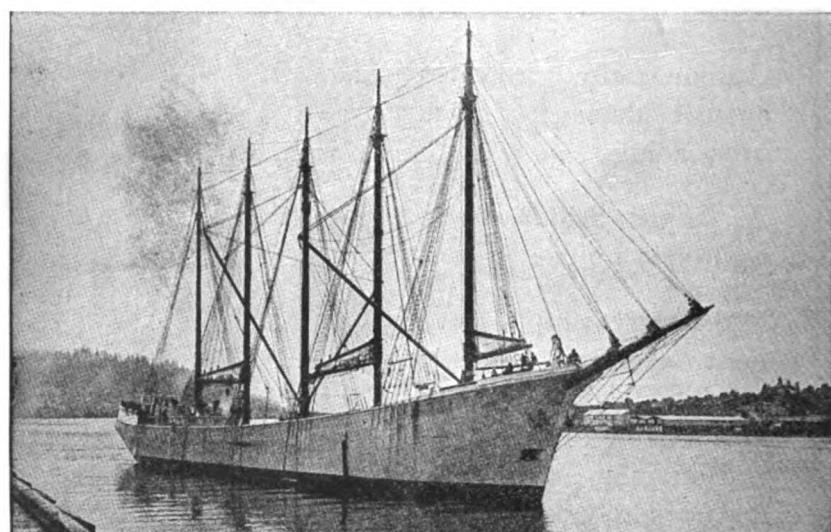
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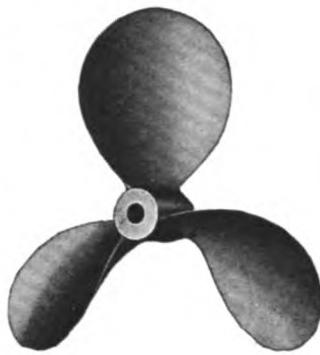
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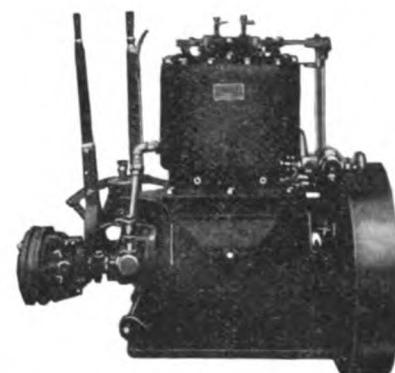
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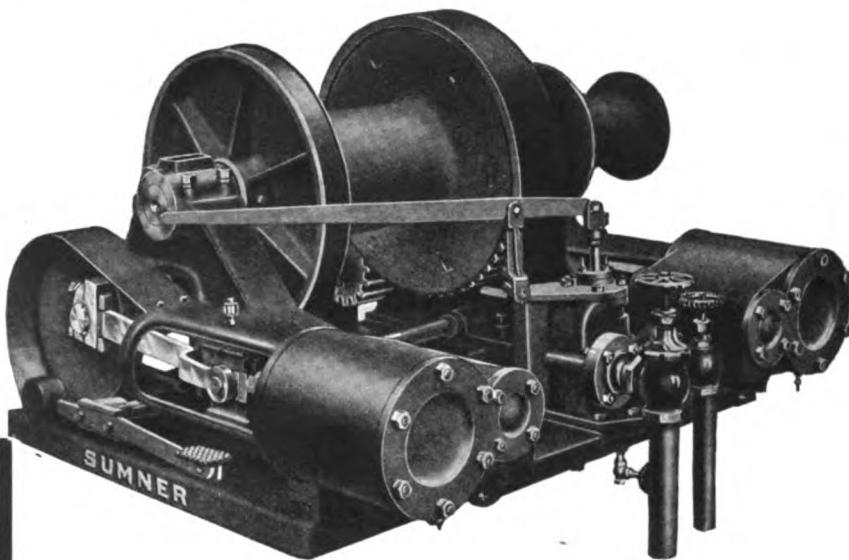
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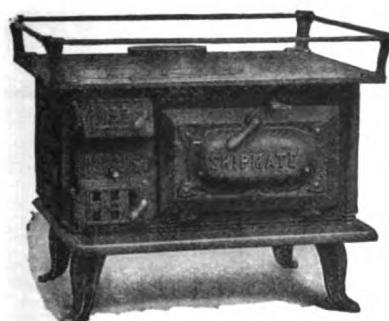
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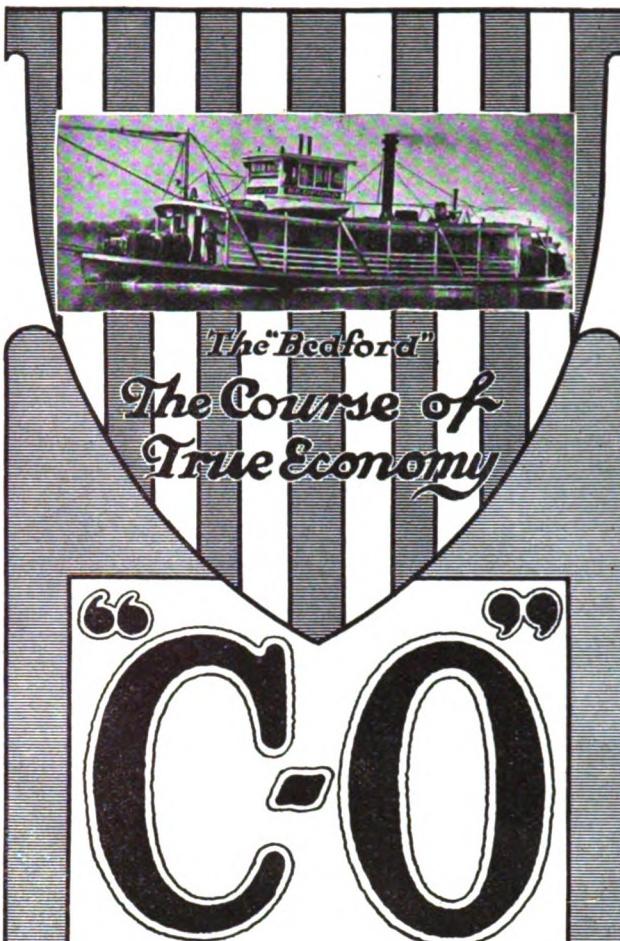
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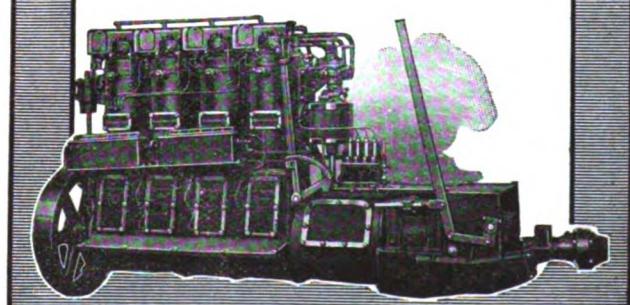
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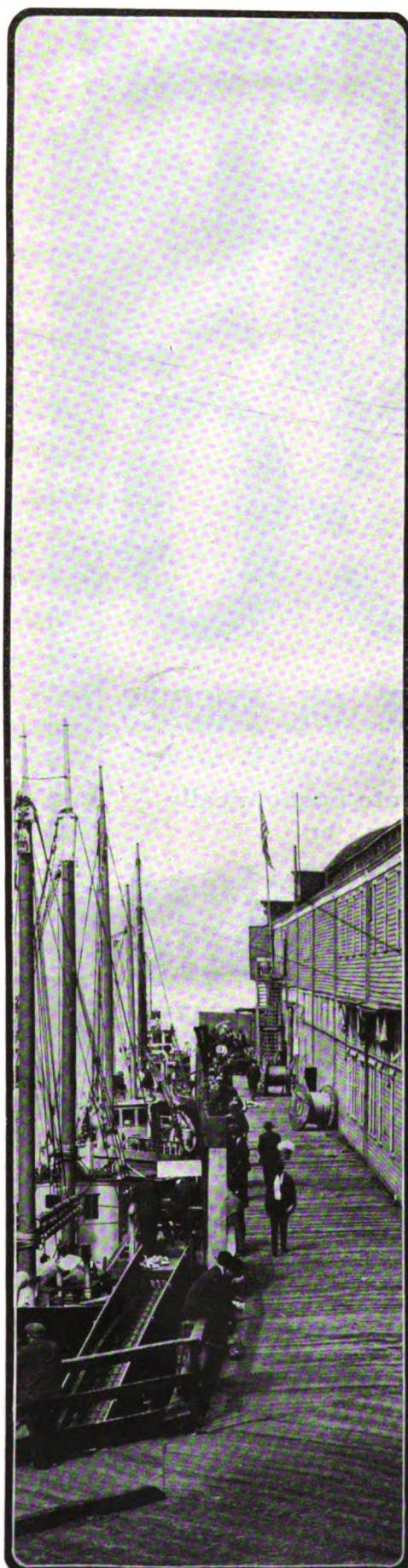
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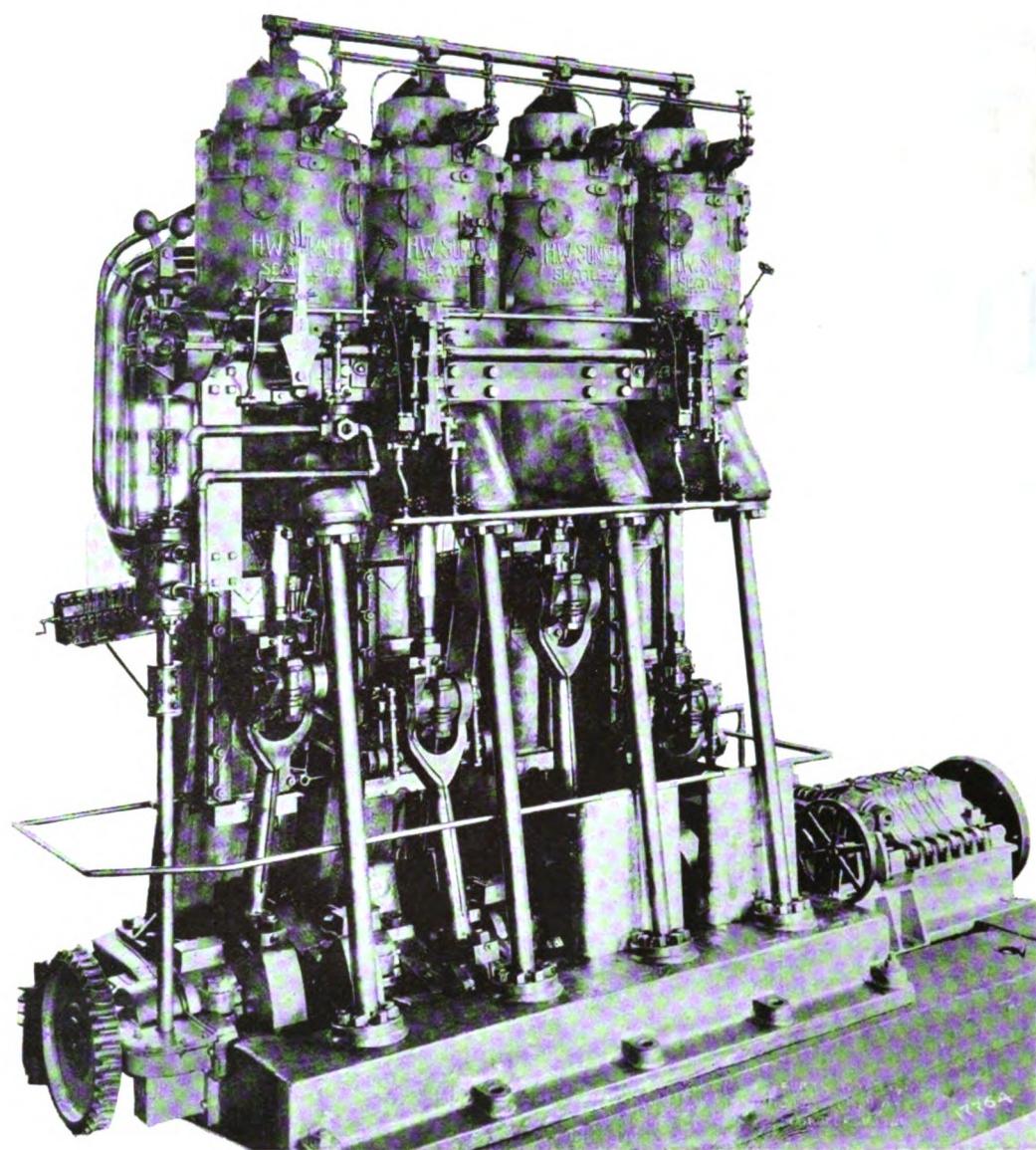


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Equipped with a 35 H. P. Three Cylinder UNION Engine. Owned by Atkins, Kroll & Co.

The above illustration is from a photograph of the "Marion," taken in Oakland Harbor previous to her departure for the South Seas. Several additional South Sea traders are under construction at the present time. One of them will be equipped with UNION Open Crosshead Twin-Screw Engines of 220 H. P., four others, each with a 110 H. P. UNION Open Crosshead Engine, and two others with 35 H. P. three-cylinder UNION Engines.

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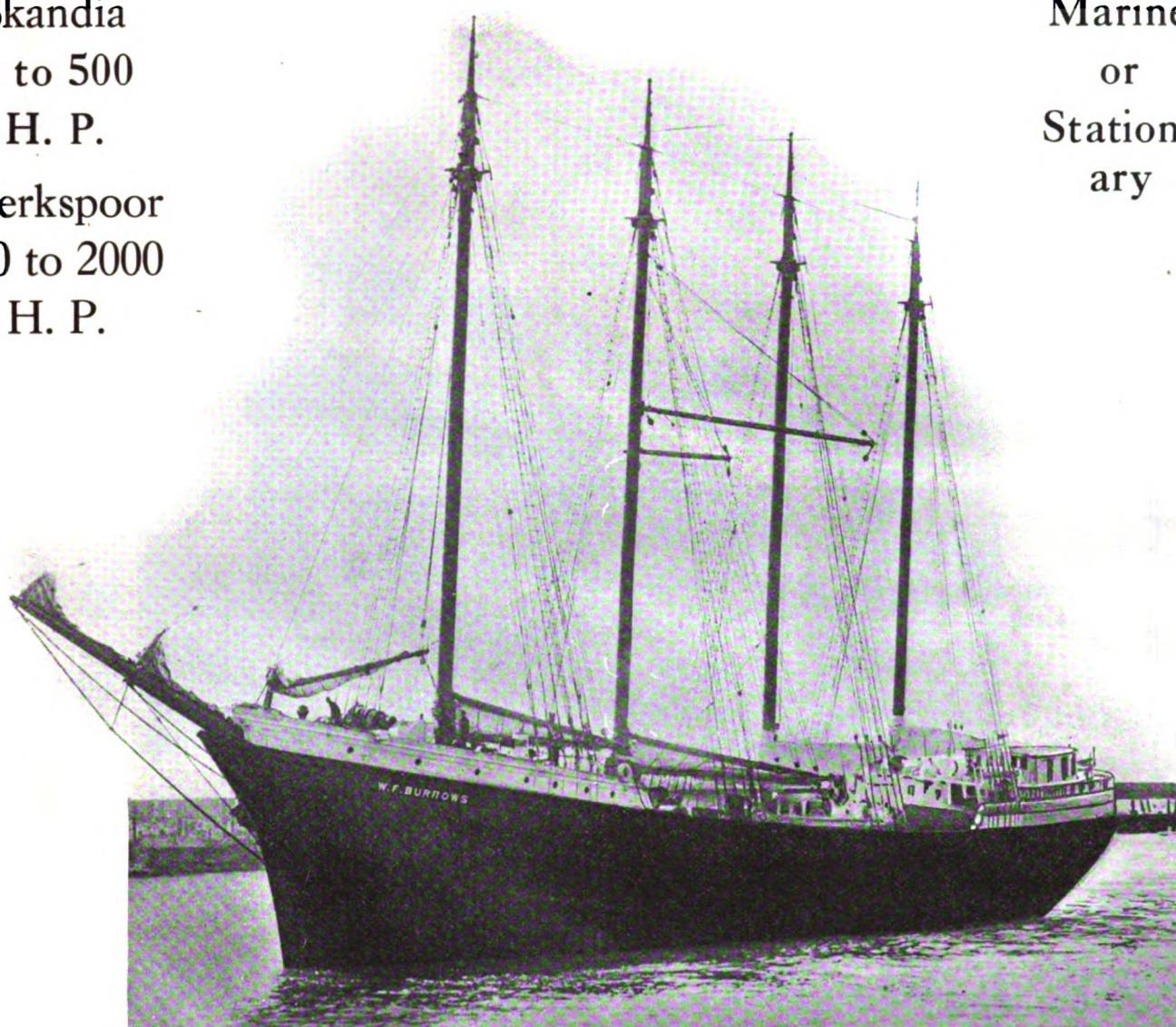
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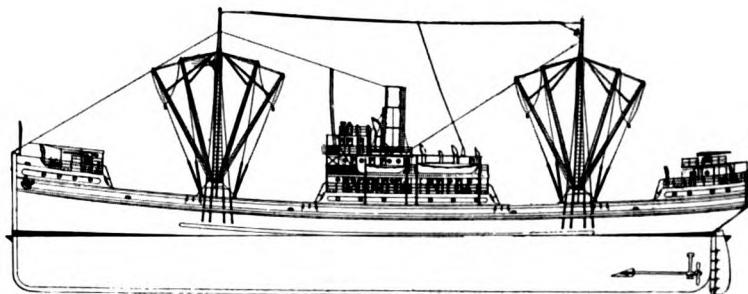
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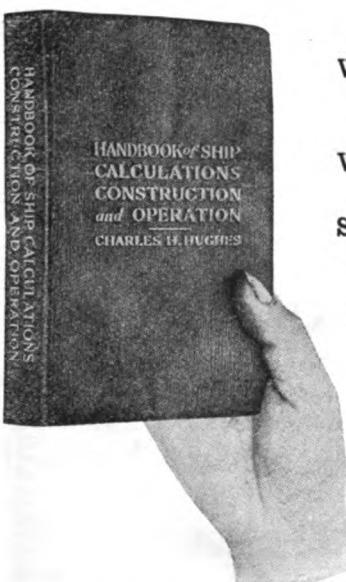
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